

# SMOKE SIGNALS

For Radio Amateurs • By Radio Amateurs

Published Monthly Since 1969 • Our 24th Year

Single Copy \$1.25

Return Address:  
Kenneth A. Ebner  
822 Wauona Trail  
Portage, WI 53901

Third Class Mail  
Forwarding and  
Return Postage Guaranteed  
Address Correction Requested

Bulk Rate  
U.S. Postage  
PAID  
Permit #265  
Portage WI 53901

Vol. 24 No. 5 - 281st Consecutive Monthly Issue - Baraboo, Wisconsin - May 1993

## The Experience of a Lifetime

### Hudson, WI Students Talk to Space Shuttle Discovery

By Meg Heaton and Bob Zientara  
© Hudson Star-Observer



SAREX Contact in progress: students at Hudson Junior High School talk with Astronaut Ken Cameron, KB5AWP, aboard the orbiting STS-56/Discovery. They are, left to right, Kris Van Ness; Mike Larson, KA9YRW; Allison Kary; and Nicole Wiersgalla, KB9IER.

- Photo courtesy of Margaret A. Ont/Hudson Star-Observer

More than 100 people -- students, teachers, parents, administrators and space nuts -- were up before dawn April 15 to be there when student ham radio operators Mike Larson (KA9YRW) and Nicole Wiersgalla (KB9IER) made contact with the space shuttle Discovery.

The excitement mounted steadily in Room 131 at the junior high school. A computer screen enabled everyone to see the shuttle move across the globe and into position for the call from Hudson.

As the countdown to contact was begun, the room grew quieter and then, just a little after 6 a.m., Larson began his call to Discovery. "CQ, CQ Discovery, this is KA9YRW, come in."

Silence. Larson called again and everyone waited. Was there a glitch; would they get through?

And then it happened. The voice of mission commander Ken Cameron (KB5AWP) came across loud and clear, like a phone call from an old friend.

When Wiersgalla, a freshman, had her turn at the microphone, she took a deep breath, smiled and gave Cameron her call letters. She said later that she thought the idea of the link-up with the shuttle sounded fun. "But I didn't think this would really happen."

Please turn to page 6

### The United States in Space: We've Come a Long, Long Way



This picture of NBC-TV reporter Roy Neal, K6DUE, was taken in the late 1950s, when the United States was beginning to organize its space program. Cape Canaveral is in the background, and a close look will reveal a construction crane near the left side of the frame. Hams have also come a long way, with orbiting satellites, packet and computers, and the wonderful new equipment that has revolutionized the amateur bands and our use of them. K6DUE retired from NBC-TV a number of years ago, but he says he's working harder than when he was working for NBC. Roy says, "The difference is that now I do only what I want to do, and manage to keep time open for getting on the air on low band and for taking trips. I still make video tapes, mostly for major companies such as Sara Lee or Vulcan Quarry, and have several still in circulation for the ARRL, 'Ham Radio in Space' and 'The New World of Amateur Radio.' And, I still do 'Newline', the Amateur Radio news service, with Bill Pasternak, WA6ITF." Roy says, "There will be plenty of SAREX missions in the future. NASA likes the program, which is in the scope of its Division of Education. The astronauts enjoy hamming.. and my gang (I chair the SAREX Working Group for ARRL and AMSAT) has every intention of keeping equipment on manned spacecraft for a long time!" Roy spoke at the 1979 ARRL Central Division in Milwaukee, and says, "I remember my visit, many years ago, to Wisconsin, and hope to have a good excuse to come back one of these days. Please give my 73 to to all the gang there in Wisconsin."

- Photo and info courtesy of Roy Neal/K6DUE

## In This Issue: Wisconsin Repeater Directory

Courtesy of the Wisconsin Association of Repeaters • See Pages 7 and 8

### ELMER

By Rich Regent, K9GDF



### ON THE INSIDE

What's Happening .....	2
Wisconsin Nets Association .....	4
League Insurance Plan for Ham Radio Equipment .....	4
Here and There .....	5
Wisconsin Association of Repeaters Notes .....	7
Scout Gathering at Oshkosh .....	8
Speech Remembered: Ham Radio Makes the Grade! ..	9
ARRL Supports FCC Fines .....	9
Taylor County Area Amateur Radio Club .....	10
Racine Megacycle Club .....	10
Sheboygan County Amateur Radio Club .....	11
Watts Snoo (Central WI Radio Amateurs) .....	11
ManCoRad Radio Club .....	12
Riverland Amateur Radio Club .....	12
Northern Wisconsin Radio Club .....	12
Eau Claire Amateur Radio Club .....	13
The Wisconsin Packeteer .....	14
Yellow Thunder Amateur Radio Club .....	15



# What's Happening

♦ **Swapfests and Other Social Events** ♦ **Club Meetings** ♦ **Amateur Radio Exam Schedules**

Edited by Kenneth A. Ebnetter, K9EN • 822 Wauona Trail • Portage, WI 53901

## Swapfests and Other Social Events

**SATURDAY, MAY 1, 1993.** Cedarburg, WI Swapfest. Held at the Circle B Recreation Center, intersection of Highway 60 and County Highway I. Amateur Radio Exams given by Badger Examiners. (See TestPoint for further information.) For more swapfest information, contact O.R.C. Swapfest Committee, 11448 N. Laguna Dr., Mequon, WI 53092. (See elsewhere this issue for ad with full information.)

**SUNDAY, MAY 2, 1993.** DeKalb Hamfest, Sandwich, IL. Contact Howard, WA9TXW, PO Box 264 Sycamore, IL 60178.

**SATURDAY, MAY 8, 1993.** Lakeshore Hamfest, Manitowoc County Expo. Contact: ManCoRad Radio Club, P.O. Box 204, Manitowoc, WI. Call: Ron, WS9X, (414) 793-4733 (nights) or Red, N9GHE, (414) 684-9097.

**FRIDAY, SATURDAY & SUNDAY, MAY 20-22, 1993.** Big Boys Toy Show, Racine Hamfest, Racine, WI. Contact Racine Megacycle Club - WB9USI, PO Box 3, Racine, WI 53401.

**SATURDAY & SUNDAY, MAY 21 & 22.** Hamboree 15, Marina Inn, South Sioux City, NE. Contact: Al Smith, WOPEX, 3529 Douglas, Sioux City, IA 51104. (712) 258-7475.

**SUNDAY, JUNE 13, 1993.** CWRA Swapfest, University Center, Stevens Point, WI. Contact: Art Wysocki, N9BCA, 3356 April Lane, Stevens Point, WI 54481. (715) 344-2984.

**SATURDAY, JULY 10, 1993.** South Milwaukee ARC Swapfest, Oak Creek, WI. Contact: SMARC, P.O. Box 102, South Milwaukee, WI. (414) 762-3235 Ext. 58.

**SATURDAY, JULY 24, 1993.** Eau Claire ARC Swapfest, Chippewa Falls Fairgrounds. Contact Lis Searing, N9EQR, 1129 McKinley Road, Eau

Claire WI 54701. (715) 834-1303.

**SATURDAY, AUGUST 14, 1993.** Swapfest sponsored by the Northwoods ARC, at Sugarcamp Town Hall, 12 miles north of Rhinelander on Highway 17. VE testing, concessions. Contact: Glen Woods, N9GRF, 6569 Hillcrest Drive, Rhinelander, WI 54501.

**SATURDAY, AUGUST 28, 1993.** Hobby Electronics Swapmeet, sponsored by the Riverland ARC. Held at the American Legion Activity Building, 731 Sand Lake Road, Onalaska, WI. Admission \$2.00, Tables \$3.00 (picnic type, first come basis.) Contact: Judy Williams, N9LGV, PO Box 621, Onalaska, WI 54650. (608) 783-8028.

**SUNDAY, OCTOBER 10, 1993.** Kettle Moraine Radio Amateurs at the Waukesha County Exposition Center, Waukesha, WI. Contact: KMRA Swapfest, PO Box 411 Waukesha, WI 53187-0411.

**SUNDAY, OCTOBER 10, 1993.** KMRA Swapfest, Waukesha, WI. Contact: KMRA Swapfest, PO Box 411, Waukesha, WI 53187-0411.

**SUNDAY, JANUARY 9, 1994.** WARAC 22nd annual Midwinter Swapfest, Waukesha County Expo Center Forum, Waukesha, WI. Contact: WARAC Swapfest, PO Box 1072, Milwaukee, WI 53201-1072.

See also the back page and flyers ads for addition information about many of the above events.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

example, if a club meets on the 4th of the month, the material should be sent no later than the 9th of that month. This material is to be sent to the Editor.

### Where to Send It

Address changes and corrections should be sent to Ken Ebnetter.

Editorial material, photographs, feature articles, display ads, and exchange papers should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebnetter.

Swapfest information should be sent to Ken Ebnetter. Swapfest ads should be sent to Jim Romelfanger.

Subscriptions should be sent, with check or money order, to Jim Decker.

### Conditions for Reprinting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*. This credit is mandatory, and no material may be printed unless it is given. This newspaper is produced by volunteer Radio Amateurs, and is non-profit. This newspaper is mailed from Portage, WI 53901.

### Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

## Club Meetings



Due to space limitations, we cannot always carry the full listing of Wisconsin and area club meetings. Please see the April 1993 meetings column for the latest complete listing. The following are additions or changes since that listing.

### TAYLOR COUNTY AREA AMATEUR RADIO CLUB (TCAARC) MEDFORD

Usually the 1st Thur. of the month at 7:00 PM sharp. Usual location: emergency government meeting room, basement of Sheriff's Annex to Taylor County Courthouse, 2nd and Ogden Sts., Medford, WI. Talk-in on 147.75/15 or 145.27(-600) repeaters. Amateurs & guests are welcome. ARS Net, Wed. nights at 8:30 PM on 147.75/15. For info contact: Rolland Walty, W9LEE, W4117 Hwy. 102, Westboro, WI 54490. (715) 427-3492

### TRI-COUNTY AMATEUR RADIO CLUB

Meetings held at members homes. Usually monthly on Sunday afternoon. Contact: Glenn Eisenbrandt, (414) 563-6502 or John Saterlee, (414) 563-6381.

## The Test Point



### Amateur Radio Examination Locations and Schedules in the Wisconsin Area

The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area.

May 1, 1993	Medford, WI
May 1, 1993	Racine, WI
May 1, 1993	Ozaukee, WI (BE) (Hamfest)
May 8, 1993	Marshfield, WI
May 8, 1993	Manitowoc, WI (Lakeshore Hamfest)
May 8, 1993	Madison, WI
May 8, 1993	Oak Creek, WI (SWAT)
May 19, 1993	West Allis, WI (MRAC)
May 22, 1993	Racine, WI (Big Boy Toy Show)
May 29, 1993	West Allis, WI (MRAC)
May 29, 1993	Tomahawk, WI
June 5, 1993	Racine, WI
June 12, 1993	Appleton, WI
June 12, 1993	Dubuque, IA
June 12, 1993	Madison, WI
June 12, 1993	Oak Creek, WI (SWAT)
June 12, 1993	River Falls, WI
June 12, 1993	West Allis, WI (MRAC)
June 12, 1993	Stevens Point, WI (CWRA Hamfest)
June 26, 1993	West Allis, WI (MRAC)
June 26, 1993	Tomahawk, WI
July 10, 1993	Madison, WI
July 10, 1993	Marshfield, WI
July 10, 1993	Oak Creek, WI (SWAT)
July 24, 1993	Eau Claire, WI (Eau Claire Swapfest)
July 31, 1993	West Allis, WI (MRAC)
July 31, 1993	Tomahawk, WI
August 9, 1993	Appleton
August 14, 1994	Rhineland, WI (NWARC Swapfest)
August 14, 1993	Madison, WI
August 14, 1994	River Falls, WI
August 14, 1993	Oak Creek, WI (SWAT)
August 18, 1993	West Allis, WI (MRAC)

## Badger State Smoke Signals

### Amateur Radio Education and Information

**CHAIRMAN:** Kenneth A. Ebnetter, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560.

**EDITOR:** Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913. Telephone (608) 356-4031.

**TREASURER:** Jim Decker, WB9UQT, P.O. Box 337, Baraboo, WI 53913-0337.

**CONTRIBUTING AUTHOR:** Richard R. Regent, K9GDF, 5003 South 26th Street, Milwaukee, WI 53221.

### Subscriptions

1 year	(12 issues)	\$9.75
2 years	(24 issues)	\$18.00
3 years	(36 issues)	\$26.00

Special club package reduced rates are available. For information, contact Ken Ebnetter, K9EN.

### When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1.

The only exception is for participating clubs. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For

August 21, 1993 Dubuque, IA  
 August 28, 1993 West Allis, WI (MRAC)  
 August 28, 1993 Tomahawk, WI  
 September 4, 1993 Racine, WI  
 September 11, 1993 Madison, WI  
 September 11, 1993 Marshfield, WI  
 September 11, 1993 Oak Creek, WI (SWAT)  
 September 15, 1993 West Allis, WI (MRAC)  
 September 25, 1993 West Allis, WI (MRAC)  
 September 25, 1993 Tomahawk, WI  
 October 2, 1993 Racine, WI  
 October 9, 1993 Oak Creek, WI (SWAT)  
 October 9, 1993 Madison, WI  
 October 9, 1993 River Falls, WI  
 October 10, 1994 Waukesha, WI  
 (KMRA Swapfest)  
 October 20, 1993 West Allis, WI (MRAC)  
 October 30, 1993 West Allis, WI (MRAC)  
 October 30, 1993 Tomahawk, WI  
 November 6, 1993 Racine, WI  
 November 6, 1993 Menomonie, WI  
 November 7, 1993 Kaukauna, WI  
 (Hamfest)  
 November 13, 1993 Madison, WI  
 November 13, 1993 Marshfield, WI  
 November 13, 1993 Oak Creek, WI (SWAT)  
 November 17, 1993 Oak Creek, WI (MRAC)  
 November 20, 1993 Dubuque, IA  
 November 27, 1993 West Allis, WI (MRAC)  
 December 1, 1993 Racine, WI  
 December 4, 1993 Stevens Point, WI  
 December 11, 1993 Madison, WI  
 December 11, 1993 River Falls, WI  
 December 11, 1993 Oak Creek, WI (SWAT)  
 December 15, 1993 Oak Creek, WI (MRAC)  
 January 9, 1994 Waukesha, WI  
 (Midwinter Swapfest)

Monthly, 1st Sat. Racine, WI  
 (except January, July & August)  
 Monthly, 2nd Sat. Madison, WI  
 Monthly, 2nd Sat. Milwaukee, WI (MRAC)  
 Monthly, 3rd Wed. Milwaukee, WI (MRAC)  
 Monthly, 3rd Sat. Loves Park, IL  
 Monthly, Last Sat. Milwaukee, WI (MRAC)  
 (except December)  
 Monthly, Last Sat. Tomahawk, WI  
 (January thru October only)

Many Swapfests/Hamfests offer exam sessions. If not shown above contact the sponsoring club in the Swapfest column on page 2.

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

#### GENERAL RULES

##### FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Most examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL or Badger State Smoke Signals. Send a 29¢ SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$5.60 payable to "ARRL/VEC".

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE or CSCE to the VEC. You must also have two good copies of your license or CSCE. A copy of your license or CSCE must be attached to your FCC form 610 and most VEC want a copy for their records. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

#### MILWAUKEE RADIO AMATEURS' CLUB (MRAC/VEC)

THIRD WEDNESDAY DATES: At 6:30 p.m. at Methodist Manor, 3023 S 84th St., West Allis, WI.

LAST SATURDAY DATES (except December): At

7500 West State St., West Allis, WI.

For Additional Information Contact; Jack Krause, (414) 774-6999 or call (414) 466-HAMS (Answering Machine) or write MRAC, 1737 N. 116th St., Wauwatosa, WI 53226.

Bring along your ORIGINAL license or CSCE and two (2) good quality photocopies, plus two forms of identification, such as driver's license, etc. Also required are a pen and \$5.00 (except Novice) for the exam fee. WALK-INS are welcome. To register in advance, use a post card: print the grade of license you are applying for, and your name, address, and telephone number. Send the card to MRAC/VEC, c/o Jack Krause, W9JK, or Les Peterson, W9YCV at the addresses shown above.

BADGER EXAMINERS (BE) - MILWAUKEE/GRAFTON  
 OZAUKEE (hamfest) May 1, 1993

NOTE: CHANGE IN LOCATION.

Unless otherwise noted, examinations are administered beginning at 9:00 a.m. to Noon. at Grafton State Bank, Grafton, WI. Walk-ins are welcome. CW waiver forms are available. Please send a request with an SASE prior to taking an exam, so it is ready when attending the session. To register in advance, send a post card with your name, test or tests you wish to take, date you wish to take., your call sign, address and telephone number to Badger Examiners, Gary J. Sharbuno, WI9M, 5119 W. Willow Rd., Brown Deer, WI 53223. Telephone (414) 355-0237.

#### OAK CREEK, WI (MRAC/VEC)

SECOND SATURDAY DATES: 1:00 p.m. at Wauwatosa Savings and Loan Branch, 6560 S. 27th St., Oak Creek, WI. (MRAC/VEC fee \$5.00)

Tri-County Swapfest at Jefferson, WI. (ARRL/VEC fee 5.60)

Contact Norman McNew, KB9QL, (414) 764-5998 or Joe Mettry, AA9DO, (414) 761-9219

#### MADISON, WI

VE exams are held in Madison every second Saturday morning of the month at 8 a.m. They are held at the operations building of the Madison Metropolitan Sewerage District at 1610 Moorland Rd. To get there take the Beltline (Hwy 12 & 18) to South Towne Drive. Go south 8/10 mile till South Towne Drive makes a bend and becomes Moorland Rd. and enter at gate.

You should bring a picture ID, your original licence and a copy of your licence. For exams beyond the novice tests, bring a check for \$5.60, made out to the ARRL/VEC. If the special 610 form with the medical exemption is required, contact me beforehand to obtain one. No appointments are necessary to take exams. For further questions, please leave a message on the mailbox or phone me at (608) 832-6631.

Mark NZ9B

#### MARSHFIELD, WISCONSIN

Sponsored by the Marshfield Area ARS. Second Saturday every other month, at St. Joseph Hospital, School of Nursing entrance. Room 124. St. Joseph Ave., Marshfield, WI. Walk-ins Welcome. Contact Walter Friant, WBOKIN, 2310 Wal-lonnie Dr., Marshfield, WI 54449. (715) 387-3870

#### RACINE, WISCONSIN - ARRL/VEC SATURDAY, MAY 22, 1993

Monthly - first Saturday, except January, July, and August.

Monthly exams are given 9:00 to 11:00 a.m. at the Red Cross Building, 4521 Taylor Avenue, Racine. Walk-ins are permitted.

May 22 exams given during the "Big Boy Toy Show", Racine Festival. Exams will be held at the United Methodist Church, 745 Main St., Racine, WI, which is only a short distance from the show. Walk-ins are permitted.

Inquiries and registrations should be directed to William Firchow, Jr., NW9P, 1912 27th Street, Kenosha, WI 53140, telephone (414) 658-8390.

#### TOMAHAWK, WI

Last Saturday of every month. Jan. thru Oct.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No preregistration required, but appointment would be appreciated. Registration

at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Greg Garner, WA9W, 4088 Highway 51, Harshaw, WI 54529. Telephone (715) 453-7096.

#### MEDFORD, WI (ARRL/VEC)

The Taylor County Area ARC with help from the Tomahawk VE team, will sponsor license exams on Saturday, May 1, 1993. Registration will start at 8:30 a.m. Exams will be held in the Multi-Purpose building located at the Taylor County Fairgrounds, in Medford, WI. All classes of exams will be given. From intersection of highways 13 and 64, go east on 64 and enter second driveway on the north side of the road. Watch for the sign at the driveway entrance. The multi-purpose building is yellow. Walk-ins accepted but advance reservation appreciated. Contact: Greg Garner, WA9W, (715) 453-7096 or Mike, N9GHZ, (715) 223-3996. Leave your name, phone no. and exam element(s) you want.

#### EAU CLAIRE, WI - SWAPFEST

#### KAUKAUNA, WI - SWAPFEST

#### MANITOWOC, WI, LAKESHORE HAMFEST

#### RACINE, WI - BIG BOY TOY SHOW

#### RHINELANDER, WI - NWARC SWAPFEST

#### STEVENS POINT, WI - CWRA SWAPFEST

#### WAUKESHA, WI - KMRA SWAPFEST

#### WAUKESHA, WI - MIDWINTER SWAPFEST

See the Swapfest column for additional information and contact persons.

#### DUBUQUE, IOWA - ARRL/VEC

Amateur examinations will be held on June 12, Aug. 21 and Nov. 20 in 1993.

Great River Amateur Radio Club VEs are now field stocked, which means retests can be given immediately.

Exams are held at 9:00 am at the Central Fire Station, 9th and Central in Dubuque. Use the basement entrance on 9th street. For more info, contact Mike Jozefowicz, NSOU, 2735 Hickory Hill, Dubuque, IA 52001. Or call Mike at 319-582-8563. Talk-ins are on the 147.84/24, 147.63/03 and 146.295/895 repeaters.

Arthur A. Evans, KA9KLZ

213 N Jefferson St.

Cuba City, WI 53807-1558

608-744-2704

#### APPLETON, WI - ARRL/VEC

#### MANITOWOC, WI (HAMFEST)

#### KAUKAUNA, WI (HAMFEST)

Conducted by the Fox Cities ARC VE team. Contact: Larry Siebers, (414) 788-3823

#### MENOMONIE, WI

The Northern Wisconsin RC will be sponsoring exams from 9:00 to 11:30 a.m. at the UW Stout Communication Center, 820 South Broadway, Menomonie, WI. Use the north entrance. Walk-ins only. Contact Jim Ley, NX9F. Work: (715) 232-1397, Home: (715) 235-3998.

#### RIVER FALLS, WI

Contact: Chuck Kelly, KA9YRV, (715) 425-2428.

#### LOVES PARK, IL

Third Saturday of every month. Northern Illinois Volunteer Examiners (Great Lakes ARC VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Contact: Paul K. Dean, WB9HCZ, (815) 987-6754.

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules. Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN at the address shown on page 2.

Let us pray...When called on to deliver the offertory prayer, a deacon said... O Lord, why is it that a ten-dollar bill looks so large in the offering plate and so small in the grocery store?

# Wisconsin Nets Association Ltd.

Rob Hummel, WA9ZTY, Secretary • 202 Midvale Drive • Marshall, WI 53559

## Wisconsin Nets

Net	WNA	Freq.	UTC	CDT	Mgr.
BWN	Yes	3984	1100	0600	W9AYK
BEN	Yes	3985	1700	1200	KE9VU
WSBN	Yes	3985	2230	1730	K9UTQ
WNN	Yes	3723	2300	1800	KA9FVX
WSSN	Yes	3645	2330	1830	N9BDL
WIN/E	Yes	3662	0000	1900	WB9ICH
WIN/L	Yes	3662	0300	2200	W9NGP
NWTN	Yes	34/94	2330	1830	NS9Q
(Rhinelander area)					
RCRA	No	01/61	2330	1830	KA9OMC
(Mondays CST) (Menomonie Area)					
Gr. Bay	No	72/12	0145	2045	WB9NRK
(Green Bay Area)					
ARES	No	4.65/5.25	0100	2000	
(South East/South Central Wisconsin)					
RACES	No	3993.5	1300	0800	WA9OAY
(LSB Sunday)					

## Section Manager's Notes



Richard R. Regent, K9GDF  
5003 South 26th Street  
Milwaukee, WI 53221

ACC: K9FHI. ASM: K9FHI. BM: WB9JSW.  
OOC: N9CAP. PIC: K9ZZ. SGL: W9TYA. SEC:  
WB9SMM. STM: K9KSA. TC: K9GDF.

Central Wisconsin RA will hold its Swapfest on June 13 at the University Center in Stevens Point, with license exams available.

Other exams: June 5 Racine; June 12 Appleton, Madison, Oak Creek, River Falls, West Allis; June 26 West Allis, Tomahawk.

The Rock River RC has been officially renewed as an ARRL Special Service Club, and now has 106 members.

Washington County RC and Red Cedar Repeater Association of Knapp applied to become ARRL affiliated.

W/K Club meets at home of N9MGK on June 8.

Chapter 55 QCWA meets June 12 at Fischer's Supper Club in Lake Delton; W9OP for info.

Field Day is an opportunity to demonstrate the capabilities of Amateur Radio to the public on June 22 and 23.

K9FHI, our ASM, has volunteered as our Wisconsin Affiliated Club Coordinator to help with club affiliations; thanks, Roy.

Thought of the month: *If it's worth doing, it's worth overdoing.* □

## ESTATE SALE

Estate of W9GZZ. Call Randy, KZ9O, at (414) 465-9045, or send SASE for list.

- From Key Clicks, Green Bay Mike and Key Club.

## Net News and Gossip

Written and Edited by the Net Managers

### Wisconsin Intrastate Net/Early

Larry Guthu, WB9ICH, Net Manager  
706 West Jennings  
New London, WI 54961

Hi, gang.

Well, it's been a while since I've written in these pages, but there really hasn't been a whole lot to write about.

Things down on Early WIN have been running along just fine and, as some of you have noticed, I am finally getting around to getting those certificates out. If you haven't gotten yours yet, don't worry because I am renewing them when your renewal month comes up. Be patient.

Upon looking over the state over the past three years and comparing the first quarters, it shows that 1992 was our best year so far. But, it also shows another interesting fact: this year, even though the amount of checkins has dropped, along with the total times of the net, the percentage of traffic passed has improved. I guess this is telling me that the net, overall, is doing a better job in less time with fewer people. This is not to say that we don't want more people to come to the net, in fact, just the opposite. We want as many people as we can get so that we can give some of the others who are coming and going to other nets a well-deserved rest.

So, come on down to 3.662 at 7 p.m., dust off the key, and get into the world in WIN. At any speed, you'll see what you've been missing.

73, Larry, WB9ICH/NM

### Wisconsin Intrastate Net/Late

Ed Rice, W9NGP, Net Manager  
W-126 Lang Road  
Oconomowoc, WI 53066

The late WIN continues to perform its regular function as the last session of the NTS nets each day. We provide the last chance for local delivery of traffic from the 9th Region, as well as relay to the next day 9th Region for traffic originating in Wisconsin. We also exchange local traffic between communities in Wisconsin. If you have traffic left over at the end of the day, check in with us at 2200 local time. We may be able to help you.

Despite the poor atmospheric conditions, our attendance has been steady. The following stations are the leading "checker-inners," listed with their total QNI for the first quarter of 1993 (records for March are incomplete at this time):

★ N9DBL . . 83      ★ W9YCV . . 79  
★ K9KSA . . 67      ★ W9CBE . . 58

KZ9V has checked in a few times recently, and we would like to see more of him.

W9KLN takes the 9th Region traffic frequently, and we appreciate the help.

We have not heard from W9OT for some time now, and hope he will find time to join us again soon.

I'll be looking forward to seeing many of you at the WNA meeting at Stevens Point on June 13.

73, Ed

## All-Risk Ham Radio Equipment Insurance Plan for ARRL Members

By Richard R. Regent, K9GDF  
5003 South 26th Street, Milwaukee WI 53221

Amateur Radio equipment can be an expensive investment. Normal wear and tear is to be expected, but unforeseen perils could cause a big financial loss. There are natural hazards like lightning, water damage and fire. There might be a thief in your neighborhood who is anxious to grab your home or mobile station. Electrical short circuits, disturbances due to power failure and surges create havoc. Also, a vehicle collision can damage mobile equipment. In Wisconsin, there aren't hurricanes like Hurricane Andrew which can damage radio equipment without much warning, but we do have high winds like the June 8, 1984 tornado at Barneveld.

Equipment insurance to the rescue. Many times a homeowner's insurance policy doesn't cover radio equipment, check yours out. One solution to protect a radio equipment investment is the All-Risk Ham Radio Equipment Insurance which can cover mobile

and home stations (except antennas, towers and rotators), plus computer software and hardware related to your ham equipment. The American Radio Relay League provides such insurance through Albert H. Wohlers & Co., ARRL Insurance Plans, 1440 N. Northwest Highway, Park Ridge, IL 60068-1400. By the way, *this insurance should not be confused with club liability insurance.*

The annual rate is \$1.50 per \$100 of replacement cost value (minimum premium is \$20) and there is a \$50 deductible for each claim. ARRL members or ARRL affiliated clubs qualify for insurance of equipment stations and even repeaters.

In most cases you'll need a sales receipt and police report for theft. This plan has paid over \$3,500,000 in claims. Amateurs have recovered \$40,000 in claims from Hurricane Andrew alone.

If you like, I can send you an application, or you can phone 1-800-323-2106 for more information. □

## TigerTail™

- Easy to Use
- Unobtrusive
- Easily Concealed
- Snaps on Handheld
- Weighs only 1/3 oz.
- Adds No Bulk or Height

Range Extender for 2 meter Handhelds  
• Boosts Signal from Flex & 1/4 wave Antennas  
• Lowers Radiation Angle  
• Improves both Receive and Transmit  
• Raises Low Power Performance  
• Saves your Battery Pack

AntennasWest  
Box 50062-SS, Provo, UT 84605-1-800-926-7373

See and Hear the Difference

7.95

### PORTA-LINK™ for all ICOM® Handhelds

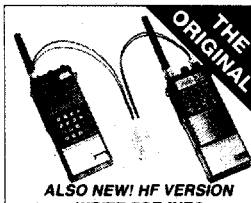
The PORTA-LINK can easily be plugged into an ICOM Handheld. Simple VOX design uses only the speaker jack and microphone input without modification.

- Use SINGLE as low power hamfest or emergency repeater.
- Use DUAL as two-way crosslink or one side as a repeater.

PORTA-LINK SINGLE - \$32 DUAL - \$67  
IL deliveries, 6.5% tax. S/H-\$3.25 or C.O.D.-\$7.50

M. BOHNHOFF

P.O. Box 6373, Libertyville, IL 60048-6373  
ORDER LINE 708-918-7330



Use as a one-way crosslink or repeater. Handle Talkies not included. \*ICOM reg. ICOM U.S.A. not M. Bohnhoff, Inc.

### KinkProof G5RV QuickKits™

created by AntennasWest Box 50062-SS, Provo, UT 84605-1-800-926-7373

- Fast & Easy to Build
- Fail-Safe visual instructions
- No measuring or cutting
- Everything included
- Finish antenna in minutes
- Quality Components
- Presoldered Silver Fittings
- Kinkproof QuietFlex wire
- Fully insulated, wx sealed, no-corrode, low noise design
- Tune All Bands Incl WARC
- Double Size G5RV 204 ft 160-10 Dipole \$59.95
- Full Size G5RV 102 ft 80-10 Dipole \$35.95
- Half Size G5RV 51 ft 40-10 Dipole \$25.95
- Quarter Size G5RV 26 ft 20-10 Dipole \$21.95
- ReadyMade 102 ft G5RV \$50.00
- ReadyMade 51 ft G5RV/2 \$40.00
- 200' Dacron 250# line \$11.95

Want Plans, Patterns, Data? Order TechNote #124-D \$6.95 ppd USA  
Order Hot-Line: Add \$5 P&H 1-800-926-7373





## Amateur Gets Suspension

The amateur license of James L. Brantley, K6KPS, has been suspended for a year starting March 21, 1993. The suspension was in settlement of a forfeiture (civil fine) proceeding against Brantley for alleged malicious interference and broadcasting violations of the Commission's Rules.

ARRL Bulletin ARLB034, 3/31/93

## No Station Location on Ham Tickets

The FCC has dropped the station location from amateur licenses, effective with new license form 660, introduced in February. The mailing address becomes the only means for the FCC to communicate with amateur licensees. Volunteer Examiner Coordinators are being told to ignore the station location information asked for on current FCC Form 610 (Section 1, Line 8).

"We expect this will improve the processing time at FCC for applications," ARRL VEC Manager Bart Jahnke, KB9NM, said. Jahnke also said he expects that FCC will drop the station location box from future printings of the Form 610.

- The ARRL Letter, 3/24/93

## FCC Proposes New Guides on Effects of Radiation

The FCC has proposed changing its guidelines for evaluating environmental RF radiation, to reflect the guidelines adopted in 1992 by the American National Standards Institute (ANSI) and the Institute of Electrical and Electronic Engineers, Inc. (IEEE).

"The new guidelines differ significantly from those they replace," the Commission said.

"For example, two 'tiers' of exposure levels are now recommended, one for 'controlled' environments, and another, generally more restrictive, for 'uncontrolled' environments.

"Also, new restrictions are placed on currents induced in the human body by RF fields below 100 MHz.

"Another significant change is the imposition of stricter limitations on automatic exclusions for low-power devices, such as hand-held radios and

## Codeless Amateurs Abound

Before mid-February, 1991, there were 115,945 Technician class amateurs in the U.S. Suddenly with the creation of the codeless Technician class of license there was a surge of new amateurs and within two years there were 82,152 more Technicians; about 71 percent of them were the new codeless Technician license. Novice upgrades comprised most of the remainder.

So, according to VEC and FCC figures, there is now a grand total of 198,097 Technicians, of which 58,202 (about 29 percent) are of the codeless licenses. There is continued interest in the codeless license as a means to upgrade after gaining some confidence and experience in Amateur Radio, something to crow about.

Perhaps you know someone who might like Amateur Radio but finds the code is an initial barrier. Tell them the good news about the codeless Technician license as a first step and maybe once they get hooked they'll yearn to upgrade later.

- Richard Regent, K9GDF  
Section Manager  
Wisconsin Section ARRL

telephones, based on operating power. The 1982 guidelines generally excluded such devices with powers of seven watts or less. The new guidelines contain more complex and more restrictive criteria for such exclusions, with allowable power decreasing as frequency increases."

- The ARRL Letter, 3/24/93

## FCC Issued Call Sign Update

The following is a list of the FCC's most recently issued call signs as of April 1.

District	Group A Extra	Group B Advanced	Group C Tech/Gen	Group D Novice
0	AA0MJ	KG0ES	N0WFK	KB0LCI
1	AA1FY	KD1NZ	N10UI	KB1ATW
2	AA2NG	KF2NZ	N2UKS	KB2QBQ
3	AA3DX	KE3HQ	N3OSA	KB3AQQ
4	AD4CK	KQ4RI	++	KD4ZSA
5	AB5MC	KJ5KE	++	KB5ZOK
6	AB6SI	KN6JQ	++	KD6TZG
7	AA7VC	KI7LZ	++	KB7TOM
8	AA8KP	KG8AA	N8XWJ	KB8OTL
9	AA9GM	KF9OM	N9SZR	KB9IML
Hawaii	++	AH6MK	WH6LT	WH6CQI
Alaska	++	AL7OV	WL7JV	WL7CGT
PR	++	KP4UZ	++	WP4LWH

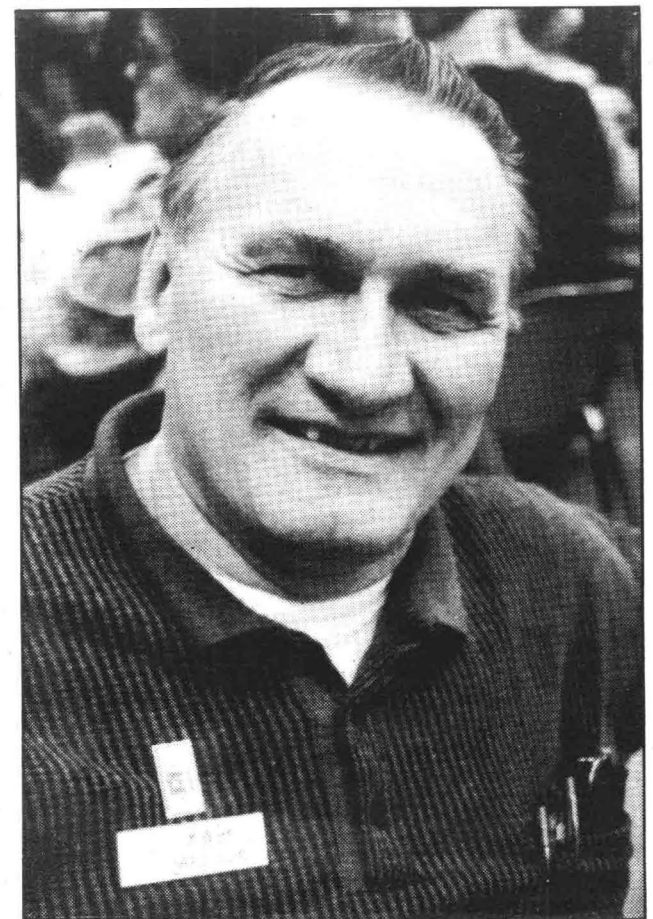
++ All call signs in this group have been issued in this area.

- ARLB042, 4/14/93

## Electronic Filings

The FCC on April 1 changed its rules to allow for the eventual "electronic" filing of license applications in the private radio services. Currently all license applications must include a handwritten signature. Last October Congress amended the Communications Act of 1934 to allow electronic filing of applications, applications signed "in any manner or form, including by electronic means, as the Commission may prescribe by regulation."

## He's Number One on the List!



The occupant of the number one spot on the ARRL's DXCC Honor Roll was captured on film at the Madison Swapfest on April 4. He's Merle Holmes, KW9K, who resides in rural Columbia county. Merle began his ham radio career as a Novice after taking a class series taught by Ken Ebner, K9EN. His first call was WN9-SEJ, which was followed by WB9SEJ after he upgraded. His phonetics for "SEJ" were "Station Entirely Junk." Since he holds #1 on the Honor Roll, it's safe to guess that it's not *entirely* junk.

Any changes to come will only be after the FCC has established procedures for electronic filing; for now amateurs, and all others, are still bound by the handwritten signature requirement.

- ARRL Bulletin ARLB041, 4/13/93

## Johnson Fete Planned

The Viking Amateur Radio Society of Waseca, Minnesota, will celebrate the 70th anniversary of its parent company, the E.F. Johnson Co., in June. The club will operate from one of the company's original buildings in Waseca on June 18-20 and again during ARRL Field Day June 25-27.

The club has asked for special permission to use the call sign 9ALD, the original call of the company's founder Edgar F. Johnson (who died in 1991). If that permission is not forthcoming from the FCC, the club will use its own call sign, WA0CJU.

Operations are planned on all "non-WARC" bands from 160 to 10 meters, on AM, SSB and CW, with QSLs and certificates going to those contacting the station. Guest operators are welcome, and the club has a telephone hotline for information: 507-835-6612.

- ARRL Bulletin ARLX004, 4/13/93

**Thank you for reading  
Badger State Smoke Signals!**

## Badger State Smoke Signals

Subscription Form • Regular Individual Subscription Rates

1 year: \$9.75 • 2 years: \$18.00 (save \$1.50) • 3 years: \$26.00 (save \$3.25)

PLEASE PRINT!

Name: \_\_\_\_\_ Call Sign (if any): \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

☐ 1 year ☐ 2 years ☐ 3 years

☐ New ☐ Renewal

Send this form, with your check or money order, to Jim Decker, WB9UQT, Treasurer, P.O. Box 337, Baraboo, WI 53913. **Please do not send cash!**

9305





# SAREX Contact Brings Person-to-Person Science Education to Hudson Students, Excitement to All

*Continued from front page*

## Quick questions

Ten students were selected from the elementary schools, the middle school and the junior high to ask questions of the shuttle crew. Time was of the essence, and the students got right to it. Questions covered everything from space debris to the demise of the rain forest. Cameron seemed impressed with the questions and told the students so.

It was over too quickly -- seven minutes, 29 seconds. Only seven students got their questions in, but the remaining three were able to greet Cameron and give their names.

Greta Tracey, a fourth-grader from North Hudson Elementary, said she didn't sleep much the night before, but she wasn't nervous when it was her turn to approach the microphone. "I just wish all the kids could have gotten to ask their questions."

Jim Richardson, chairman of the Hudson Education Foundation which contributed to the purchase of the radio equipment through a Star Grant, sat in the audience listening to the transmission. Asked what he thought, "It's the best money we could have spent. It is what the foundation is for."

Superintendent Ron Bernth was clearly pleased by the success of the transmission and the excitement it generated throughout the district. "These kinds of experiences, well, most people will never get a change to do this. And with the foundation's help, these things can happen. We want to see more of this, taking science out of the textbook and into real meaningful experiences for our students, well, for all of us."

## Making science real

But the happiest guy of the day had to be teacher Gerald Larson (N9FXV) who, with the help of technical education instructor Roger Hammond (KB9IHP), began the project last fall.

Hammond secured the foundation grant for some radio equipment to get the students started. Larson petitioned NASA to have Hudson be part of the SAREX program that would put students in touch with the shuttle.

Following the transmission, Larson was interviewed by KSTP television and WCCO radio. Parents came up to ask him how their kids could get into Amateur Radio and to just say thanks for the experience.

"This is all we hoped for and more. I just thank everybody who helped to make it possible." Larson credited Hammond, the Education Foundation and members of the 3M and the St. Croix Valley ham radio clubs for making the experience a reality.

## Wide smiles, cheer greet Discovery

Waking up at 5 a.m. -- or even earlier, in many cases -- didn't seem to have an effect on the expectancy in the room before the hookup took place. The audience, seated at desks that would later be occupied by students, watched with interest as the panel of radio operators set up for their transmission.

Television lights cast a glare on the youngsters, and TV camera operators (Saint Paul-Minneapolis channels 5 and 9 covered the event) fussed over their equipment, adjusting camera angles.

The front of the room was raised above the main floor, like a small stage. In this area sat about 30 invited guests, including members of the Hudson Education Foundation.

Larson bustled in and out of the room as he made final preparations. Down the hallway, in the school's main office, staff members kept an eye on the clock to alert the classroom that the transmission could begin.

A loudspeaker, rigged by ham radio operators, sent out an unbroken stream of static while the students waited their final, few moments before beginning the conversation.

At precisely 6:03 a.m., the call went up from radio operators Mike Larson and Nicole Wiersgalla:

"Space shuttle Discovery, this is KA9YRW."

Then, after the first few seconds when there was no reply came the words: "Go ahead, KA9YRW," from shuttle commander Ken Cameron.

There were gasps of surprise and joy. A woman standing in the room clapped and jumped as she realized contact had been made with the orbiting spacecraft.

Then the audience and students settled to their tasks -- to carry on the conversation, and to listen to the responses from more than 100 miles up.

At one point, the shuttle signal faded as Discovery was maneuvered in a different direction to take a reading from the sun. Cameron came back on the line, however, to report that the signal had broken off because the shuttle antenna had turned away from Earth while the readings were taken of the sun. Traveling at a speed of nearly 17,000 mph, the shuttle was moving out of range by the time the last three children got a chance to make their remarks.

There was a momentary pause when it was over -- all too quickly, it seemed. And then, the room broke out with spontaneous applause.

## Coming soon -- contact with a Russian station?

What next? Larson said the district recently received a Kohl Fellowship grant to keep the program in the junior high school and further explore the use of ham radio to teach about science in the real world.

Larson and Wiersgalla will likely be going on a sort of speaking tour to the Hudson elementary schools, telling students about Amateur Radio and about their recent experience.

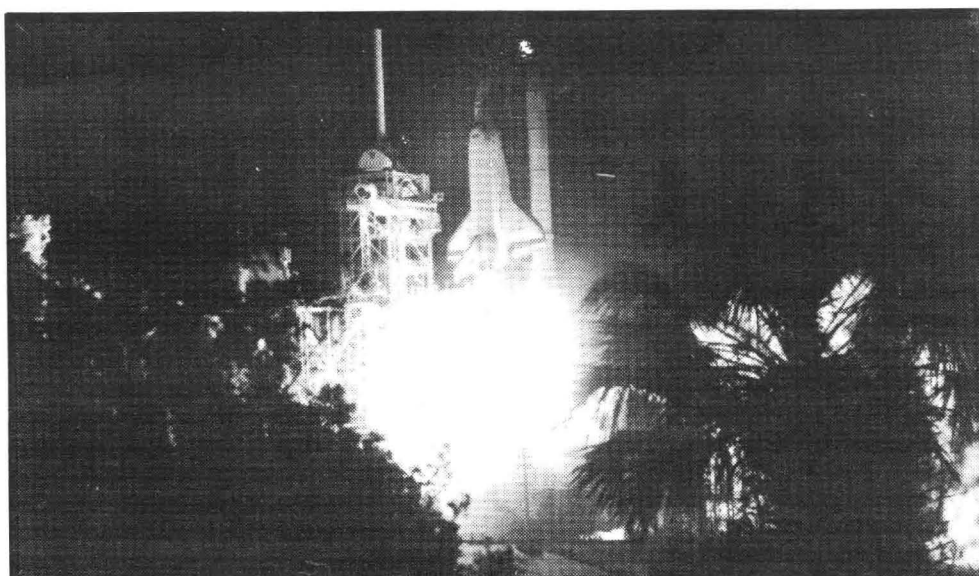
And Larson said they will be exploring Packet Radio -- an interface between computer and ham radio that allows messages to be sent across the nation, possibly even to the Russian space station.

After all, as we now know after April 15, the sky is the limit. □

*This story originally was published in the Hudson Star-Observer. It may not be reprinted without the consent of that newspaper. BSSS extends its gratitude to their staff, especially to photographer Margaret A. Ontl. Without their help, we would have had no story about the SAREX contact. More coverage of the contact is on pages 12 and 13.*

In the photo at right, Junior High science teacher Gerald Larson (N9FXV), and fellow St. Croix Valley ham operators Jim Ferguson (KB0CET), Roger Hammond (KB9IHP), and Bob Emberger (KB9BTB) check out the VHF antennae that were used to make the Amateur Radio contact with the space shuttle Discovery. Special controls that direct the antennae (azimuth and elevation) were operated by one of Larson's students. Another photo is on page 12.

- Photo by Margaret A. Ontl/Hudson Star-Observer



STS-56 launch: A nocturnal scene shows the Space Shuttle Discovery leaving the launch pad to begin the Atlas-2 mission in Earth orbit. The launch occurred at 12:29 a.m. CDT on April 8. On board were astronauts Kenneth D. Cameron, Stephen S. Oswald, J. Michael Foale, Kenneth D. Cockrell, and Ellen S. Ochoa. A total of twelve experiments were flown on STS-56, including SAREX. All five crew members are radio amateurs, making this the second flight with an all-ham crew.

- NASA photo



Astronaut Kenneth D. Cameron (KB5AWP), STS-56 mission commander, prepares to remove a camera before making exposures with it. Cameron and four other NASA astronauts spent nine days in space supporting the Atlas-2 mission and eleven other experiments. Cameron spoke with students at Hudson Junior High School during a SAREX contact. He was impressed with the questions asked by the students.

- NASA photo



In front, Mike Larson, Justin Vold, and Nicole Wiersgalla are interviewed by Minneapolis/St. Paul TV Channel 9. In the back is (wearing glasses) Earth Science teacher Gerry Larson (N9FXV, Mike's dad). Next to him is Joe Rossi, a photographer from the St. Paul Pioneer Press.

- Photo by Margaret A. Ontl/Hudson Star Observer





## Wisconsin Association of Repeaters Notes

• The Wisconsin Association of Repeaters, (W.A.R.), is in existence to help bring some order to frequency usage for voice repeaters. By promoting bandplans and providing coordination services to new and existing repeater operators for over 20 years, W.A.R. has been a leader in the Country and a model to other coordination groups in other states.

• After nine years of service as Coordinator for W.A.R., I have passed the baton to Scot Thompson, WB0WOT, from Beldenville, WI. I was then elected as Chairman of the group!

• I have made a couple of decisions as a part of this transition, regarding frequency usage in Wisconsin. First, the Six Meter plan has been under transition from a 1 MHz split, to a 500 KHz split, to a 1.7 MHz split. After receiving a great deal of objection to the new splits, I have gone on notice that we will coordinate Six Meters with a 1 MHz split, with the complimentary 1.7 MHz input frequency in reserve for that repeater. This way, if the 1.7 MHz spread between input and output

becomes the defacto standard, all the operator needs to do is change the input frequency, or even operate both input frequencies if he wishes!

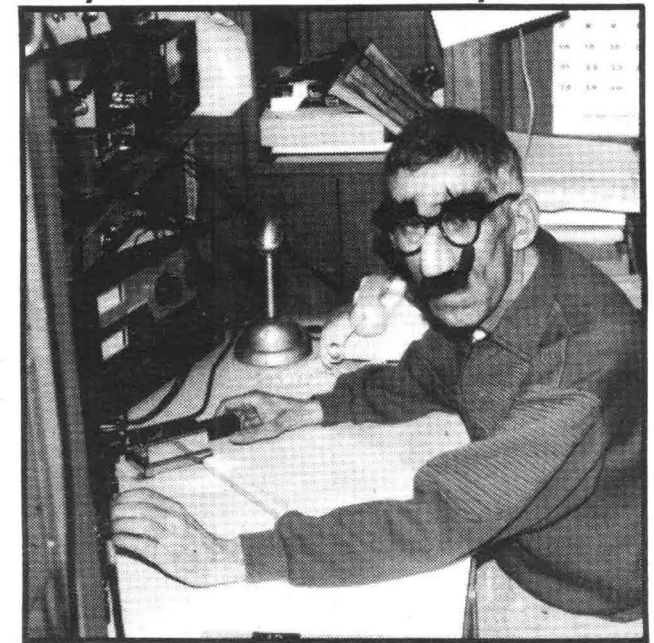
• The second decision is to provide the Packet community with the range of 446.025 to 446.200 MHz to expand Packet without further coordination. The frequencies of 446.200 to 446.500 MHz are recommended for use by anyone who is using a dual band radio as a cross band repeater. These frequencies will cause minimal interference to repeater control links, and can be used, without coordination, for impromptu setups for events and other brief occasions. I hope these decisions will prove to be fair and effective in the years to come.

• As Coordinator, I made many friends, coordinated many repeaters, attended many meetings and swapfests, enjoyed talking to people throughout the State that had dealings with W.A.R. and me, was introduced to "Dayton," to which I'm now addicted, made many decisions and made some mistakes, some stupid, others of poor judgement.

Thank you all for the support and cooperation that was received by me, and all the constructive criticism from you too.

Sincerely,  
Nels Harvey, WA9JOB

## Early Wisconsin QSO Party Photo



We normally print pictures of entrants in the Wisconsin QSO Party with the official results, but we couldn't resist printing this photo of a rather unusual-looking operator a little ahead of time. The official results of the Party will be published here in BSSS, most likely in the July issue, not in June as originally planned. All stations which submitted logs will receive a copy of the issue with the results. Oh, who is this guy? Well... er... ah... it's... me. We hope we get some better photos to print with the results. We'd sure hate to have to run this one again.

- K9ZZ/Photo by Ken Ebner/K9EN

# Wisconsin Repeater Directory



Courtesy of the Wisconsin Association of Repeaters



The WISCONSIN ASSOCIATION OF REPEATERS is an organization of trustees and representatives of repeaters, state-wide, whose goal is mutual cooperation on the VHF UHF spectrum, in the voluntary spirit of Amateur Radio.

## GENERAL FREQUENCY COORDINATION POLICIES

1. We attempt to place no two repeaters on the same pair closer than 120 miles.
2. We attempt to place no repeater on a 15 kHz split pair closer than 40 miles to any adjacent 30 kHz standard spacing machine.
3. We not only assist proposed repeaters in finding a frequency where possible, but we actively attempt to protect coordinated repeaters' frequencies from interference whenever possible.
4. W.A.R. has suggested band plans for most of the FM spectrum, a subaudible tone plan for the State of Wisconsin and all necessary information for coordination of new or modifications to existing repeaters. Contact the Frequency Coordinator: Scot Thompson, WB0WOT, Wisconsin Association of Repeaters, P.O. Box 23166, Milwaukee, WI 53223.

## KEY TO CODES

O	Carrier Access	B	Burst
PL	Sub-Audible Continuous Tone	T	Touch-Tone
W	Whistle	C	Closed Private Repeater
A	Autopatch	(CA)	Closed Private Autopatch
E	Emergency Power	L	Link and/or Crossband
P	Portable	R	RACES Affiliated
Y	RTTY/ASCII	PAC	Packet Data Exchange
X	Wide Area Coverage	Z	Autopatch to Law Enforcement

## WISCONSIN SUB-AUDIBLE TONE PLAN BY REGION

North Central: 2A, 114.8 Hz	North East: 1B, 107.2 Hz
North West: 2Z, 110.9 Hz	South Central: 3Z, 123.0 Hz
South East: 3A, 127.3 Hz	South West: 3B, 131.8 Hz

## STANDARD INPUTS UNLESS OTHERWISE NOTED

-600 KHz below 147.00 MHz	+600 KHz to 148.00 MHz
-1.6 MHz. for 222 MHz	+ 5 MHz for 440 MHz
421.25 MHz TV Video + 18 MHz 425.75 MHz TV Aural, + 9 MHz	

Location	Rg	Output	Call	Access	Update	OK=*	Sponsor	Updated
ALGOMA	NE	146.805	WB9RJB/R	O PL 107.2 L	WB9RJB			03/14/92
ALLENTON	SE	442.350	N9GMT/R	O A E L X PL 114.8	L-FM 38			08/24/90
ANTIGO	NC	145.310	KD9HH/R	O	KD9HH			03/12/92
APPLETON	NE	145.150	KB9BYP/R	O CA E Z PL 107.2	A.R.E.S.			03/14/92
APPLETON	NE	145.330	WD9FLJ/R	O PL 107.2	F V VHF A			03/26/91
APPLETON	NE	146.760	K90QO/R	O	F V VHF A			07/05/92
APPLETON	NE	147.195	KB9BYQ/R	O PL 107.2/114.8	BARB			12/14/92
APPLETON	NE	443.650	W9DKY/R	O	W9DKY			03/20/92
APPLETON	NE	1282.200	N9LVS/R	O E L	N9LVS			03/22/92
ARLINGTON	NC	147.315	N9QIP/R	O	N9QIP			10/04/92
ARLINGTON	NC	444.550	N9QIP/R	O	N9QIP			10/04/92
BALDWIN	NW	145.130	W9AVX/R	O	ST.CR CO			05/08/92
BALDWIN	NW	146.685	WB0ND/R	O L E	SARCASM			04/17/92
BALDWIN	NW	147.330	WD9GWH/R	O 100 HZ XMIT PL	ST.CR RA			07/05/92
BARABOO	SC	146.880	K9YXW/R	O E X PL 123.0	C W R A			04/29/92
BARABOO	SC	443.900	N9FBF/R	O A L PL 114.8	L-FM 38			09/21/91
BAYFIELD	NW	146.610	W9BCY/R	O	NLAND ARC			03/12/92
BELDENVILLE	NW	147.225	WB0WOT/R	O	WB.A.T.S.			06/07/92
BELDENVILLE	NW	224.840	WB0WOT/R	O A E	WB.A.T.S.			03/20/92
BELOIT	SC	146.670	WA9JTX/R	O E R	BELOIT AR			04/12/92
BELOIT	SC	224.300	WB9UBM/R	O TT	C.B.S. RG			03/14/92
BERLIN	SC	443.850	N9AOZ/R	O A PL 123.0	N9AOZ			03/14/92

Location	Rg	Output	Call	Access	Update	OK=*	Sponsor	Updated
BURLINGTON	SE	146.745	WB9CAS/R	O A				04/12/92
BURLINGTON	SE	224.060	N9BBQ/R	O PL A E			SE WI ERS	12/15/92
CAMERON	NW	443.650	N9KOR/R	O E CA			N9KOR	12/31/92
CHIP'WA FALLS	NW	146.880	WA9PAM/R	O			WA9PAM	03/12/92
CHIP'WA FALLS	NW	444.350	WA9PAM/R	O			WA9PAM	03/12/92
CLARKS MILLS	NE	145.370	KA9YGO/R	O			KA9YGO	07/05/92
CRIVITZ	NC	145.470	KA9YQJ/R	O PL 114.8 CA			KA9YQJ	12/14/92
DELAFIELD	SE	146.820	W90OW/R	O CA E X PL 127.3			SEWFARS	09/22/92
DELAFIELD	SE	444.125	KE9QP/R	O E PL 114.8			SEWFARS	09/22/92
EAGLE RIVER	NC	145.390	KD9PT/R	O			KD9PT	03/12/92
EAU CLAIRE	NW	146.910	K9UXP/R	O A E X			E C ARC	06/28/92
EAU CLAIRE	NW	147.195	KA9LJK/R	O			KA9LJK	07/16/90
EAU CLAIRE	NW	147.240	KA9ELD/R	O CA E			E C ARC	06/28/92
EAU CLAIRE	NW	443.300	KB9R/R	O E			KB9R/R	03/12/92
EAU CLAIRE	NW	444.675	KA9LJK/R	O			KA9LJK	07/16/90
ELKHORN	SE	146.865	WA9AJW/R	O			W CO ARES	08/08/92
ETTRICK	SW	146.700	WA9HCZ/R	RTTY 2125 HZ MARK			WA9HCZ	03/12/92
FOND DU LAC	NE	147.090	WD9ESH/R	O			* FDL RPT	01/10/93
FOND DU LAC	NE	223.740	WA4COY/R	O B CA			WA4COY	06/06/92
FOND DU LAC	NE	444.150	WA4COY/R	O B A PL 107.2			WA4COY	06/06/92
FOND DU LAC	NE	444.225	KA0SEP/R	O			KA0SEP	04/08/92
FORT ATKINSON	SC	53.090	AA9AD/R	O PL 123.0			* S.W.R.G.	02/09/93
FORT ATKINSON	SC	145.490	W9MQB/R	O			TCARC	04/17/92
FORT ATKINSON	SC	224.420	N9DIT/R	O			N9DIT	04/17/92
FRANKLIN	SE	444.625	K9WQG/R	O			K9WQG	11/22/90
FRANKSVILLE	SE	223.920	KC9NG/R	O			KC9NG	10/04/92
FREEDOM	NE	224.220	AA9A/R	O PL			AA9A	11/15/90
FREEDOM	NE	224.860	KD9IA/R	O			KD9IA	02/26/92
FREMONT	NC	147.015	N9AOT/R	O A L 29.600 TT			W.A.C.O.	03/22/92
GERMANTOWN	SE	147.045	WB9EFP/R	O CA			WB9EFP	04/26/91
GERMANTOWN	SE	224.180	W9CQO/R	O			O.R.C.	03/14/92
GERMANTOWN	SE	443.225	WD9DHI/R	O PL 114.8			W E R A	03/12/92
GILLET	NE	224.480	N9MPB/R	O PL 114.8			N9MPB	03/14/92
GLIDDEN	NW	444.650	N9EDV/R	O INPUT 144.65			N9EDV	01/06/92
GREEN BAY	NE	147.120	K9GB/R	O A E Z X			G B M&K	03/12/92
GREEN BAY	NE	147.270	KB9ALN/R	OXPL 107.2 31U/30D			NE URL	12/14/92
GREEN BAY	NE	147.360	K9EAM/R	O A E Z			GB M&C	03/12/92
GREEN BAY	NE	223.940	K290/R	O A E			WA9SWX	03/12/92
GREEN BAY	NE	224.140	K290/R	O A E PL 107.2			RA RMT	03/12/92
GREEN BAY	NE	443.500	WA9SWX/R	O A E Z			GB M&K	03/12/92
GREEN BAY	NE	443.750	N91IE/R	O			RRU	12/14/92
GREEN BAY	NE	444.200	WB9VJV/R	C			WB9VJV	06/08/90
GREEN BAY	NE	444.750	KB9AMM/R	O			KB9AMM	03/14/92
GREEN LAKE	SC	146.955	KB9WC/R	O E			G FOX ARC	06/28/92
GREEN LAKE	SC	444.400	KB9WC/R	O			G FOX ARC	06/28/92
GREENFIELD	SE	52.880	WB9WKR/R	O			GF'LD 6RS	03/12/92
HAYWARD	NW	147.255	N9EGE/R	O CA			NVWA	05/02/91
HAYWARD	NW	444.850	N9EGE/R	O			N9EGE	03/12/92
HERTEL	NW	147.300	WB9RAY/R	O A E			B.A.R.S.	03/12/92
HERTEL	NW	224.500	WB9RAY/R	O A E			B.A.R.S.	03/12/92
HERTEL	NW	443.500	WB9RAY/R	O A E			B.A.R.S.	03/12/92
HILBERT	NE	53.170	KN9P/R	O P			KN9P	03/01/93
HILLSBORO	SW	145.370	WB9SBD/R	O			WB9SBD	12/14/92
HIXTON	SW	146.940	KC9YE/R	O			T-J RA	03/12/92
HOLCOMBE	NW	147.345	N9QWH/R	O			N9QWH	
HOLCOMBE	NW	441.925	N9QWH/A	O			N9QWH	
HOLCOMBE	NW	444.625	N9QWH/R	O			N9QWH	
HOLLANDALE	SC	146.655	KB9AKM/R	O			ICATS	03/12/92
HUBERTUS	SE	145.250	KA9HLP/R	O			A.R.E.S.	09/08/92
HUDSON	NW	146.955	K0LAV/R	O PL 114.8 L			K0LAV	06/07/92
IRMA	NC	146.730	K9GTQ/R	O			K9GTQ	03/25/90
JANESVILLE	SC	145.450	WD9ACY/R	O A E			R A T SYS	03/30/90
JANESVILLE	SC	147.075	KB9YC/R	O PL 123.0			KB9YC	11/17/92
JANESVILLE	SC	442.825	KB9YC/R	O PL 123.0			KB9YC	11/17/92
JUNEAU	SC	146.640	W9TCH/R	O A E 2911 WX			ROCK R RC	07/12/92
KAUKAUNA	NE	444.450	ND9Z/R	O CA			ND9Z	03/14/92
KENOSHA	SE	224.800	WB9LST/R	O A E PL 114.8			K.A.R.S.	03/20/92
LA CROSSE	SW	29.640	KE9XQ/R	O			KE9XQ	04/20/91
LA CROSSE	SW	146.760	K9CUT/R	O			L C R ASC	06/12/92
LA CROSSE	SW	146.865	KE9XQ/R	O			KE9XQ	04/20/91
LA CROSSE	SW	146.970	K0JYB/R	O A E			RVRLNDARC	03/12/92
LA CROSSE	SW	147.090	N9ETD/R	O			MVARA	05/28/91
LA CROSSE	SW	444.600	N9ETD/R	O			MVARA	07/27/92
LA VALLE	SC	442.400	W9EBF/R	O PL 123.0			W9EBF	04/04/92
LAC DU FLAMBEAU	NC	146.670	N9AFN/R	O PL			N9AFN	03/12/92
LODI	SC	147.225	K9EYY/R	O CA E PL 114.8			K9EYY	03/20/92
MADISON	SC	53.070	N9KAN/R	O PL 123.0 (P)			S.W.R.G.	02/09/93



# Thousands of Cub and Boy Scouts to Gather at Oshkosh

By Richard R. Regent, K9GDF  
5003 South 26th Street, Milwaukee, WI 53221

On May 14, 15, and 16, there will be a Boy Scout and Cub Scout encampment at the Experimental Aircraft Association grounds in Oshkosh. More than 15,000 Scouts will attend and participate in a myriad of events, like obstacle and compass courses.

Scouting aims high at this airplane and ham event. Ham radio will create excitement, adventure, and action with communications demonstrated by members of area clubs - the Fond du Lac Radio Club and the LeFrog (Local Field Radio Operating Group) of Milwaukee.

There will be two stations set up to operate HF, VHF, ATV, and packet, plus other modes of communications that boys, leaders, and observers will enjoy using. Code practice oscillators, code charts, and hand keys will be available. A special

QSL card will be given to those completing their communicators award or merit badge requirements. The EAA will mark the ham stations on the Fly-In map, so the group's antennas will not be any problem to pilots in the area. The ham manager of the Fond du Lac Radio Shack store will provide computers for the boys to use.

There will, of course, be many airplanes to see, discount tickets for EAA Museum tours made available, and control-line and remote-controlled model airplane demonstrations to watch. Scouts may catch a glimpse of an astronaut jogging by or a hot air balloon being launched. Miss Wisconsin, Anne Klett, plans to be there. Even the Cub Scouts who are concentrating on learning Morse code or working DX will probably take a moment to whistle when she is introduced at the big Saturday night campfire!

**THE BARGAIN MODE**  
**SSB**  
SELL SWAP BUY  
OUR WANT ADS GET RESULTS

**WANTED:** Need replacement main tuning capacitor for a Heathkit Model GC-1A "Mohican" receiver which is going to a missionary in Mexico. Heathkit part number 26-62; 290pF/290pF/290pF, with the rotor plates off center on the shaft, or basket case "Mohican" from which I can cannibalize same. Dick Sisson, W5ONL, 2200 Washington Ave #322, Racine, WI 53405. (414) 637-2790. Packet: W5ONL @ K9RRS.WI.USA.NA.

**Field Day Antenna Installation System**  
One Person Installs in minutes  
ANTENNA LAUNCHING MADE EASY  
\$29.95 add \$5 Air Ship  
1-801 373-8425  
AntennasWest  
Box 50062-BSS, Provo, UT 84605

## Wisconsin Repeater Directory

Location	Rg	Output	Call	Access	Update	OK=*	Sponsor	Updated
MADISON	SC	146.685	W9YT/R	O PL	107.2		UW-B ARS	12/14/92
MADISON	SC	146.760	WB9AER/R	O CA E Z PL	123.0		M A R A	03/12/92
MADISON	SC	146.940	W9FZC/R	O PL	123.0		C W R A	04/29/92
MADISON	SC	147.150	WB9AER/R	O CA E Z PL	123.0		M A R A	03/12/92
MADISON	SC	224.160	WB9RSQ/R	O PL			WB9RSQ	03/21/92
MADISON	SC	443.000	N298/R	O			BURG	03/31/92
MADISON	SC	443.400	N9KAN/R	O PL 123.0 CA X L		*	S.W.R.G.	02/09/93
MADISON	SC	444.000	KA9VDU/R	O PL 123.0 L			BURG	03/12/92
MADISON	SC	444.450	N9PHQ/R	O			N9PHQ	03/09/93
MADISON	SC	444.500	N9PHQ/R	O PL 123.0		*	N9PHQ	01/07/93
MADISON	SC	444.775	NG9V/R	O PL 114.8			NG9V	04/29/92
MADISON	SC	444.925	WB9TAE/R	O PL (MOBILE)			WB9TAE	03/12/92
MANITOWOC	NE	145.190	WB9MFB/R	O X PL 107.2			WB9MFB	03/21/92
MANITOWOC	NE	146.610	W9DK/R	O TT			MANCORAD	10/22/92
MANITOWOC	NE	146.700	K9FWR/R	RTTY			K9FWR	12/10/89
MANITOWOC	NE	147.030	N9GHE/R	O A Z911* PL 107.2			N9GHE	03/12/92
MANITOWOC	NE	224.540	N9GHE/R	O			N9GHE	03/12/92
MANITOWOC	NE	443.975	N9GHE/R	O A			N9GHE	03/12/92
MARSHFIELD	NC	147.180	AA9BN/R	OAE Z911 L 444.975			MAARS	10/17/92
MARSHFIELD	NC	444.975	AA9BN/R	O E L 147.18			MAARS	10/17/92
MAUSTON	SC	146.850	N9FVP/R	O			ARC OF CW	03/12/92
MEDFORD	NC	147.150	W9QHI/R	O E P WX			TAYLOR	12/15/92
MENOMONEE FALLS	SE	444.425	KA9FIN/R	O			SHRINE	04/17/92
MENOMONIE	NW	146.610	WB9YMB/R	O			R CDR RA	03/12/92
MENOMONIE	NW	146.805	N9HNI/R	O			N9HNI	08/25/91
MERRILL	NC	53.190	N9QJ/R	O			MERRIL RA	03/01/93
MERRILL	NC	145.450	KB9DZG/R	O			KB9DZG	12/03/91
MERRILL	NC	146.970	AA9CB/R	O			AA9CB	07/27/92
MILTON	SC	146.715	WB9FKW/R	O CA			WB9FKW	03/12/92
MILWAUKEE	SE	29.620	WB9ZRB/R	O			IND RP SY	03/14/90
MILWAUKEE	SE	29.680	N9BBG/R	O PL 127.3			N9BBG	03/21/91
MILWAUKEE	SE	53.030	WB9TRO/R	O			W.E.R.A.	03/12/92
MILWAUKEE	SE	52.680	WB9ZRB/R	O			IND RP SY	03/14/90
MILWAUKEE	SE	53.150	N9MTV/R	O			N9MTV	07/27/92
MILWAUKEE	SE	145.130	N9EGR/R	O AELZX PL 141.3			MAARS	06/04/92
MILWAUKEE	SE	145.170	W9FK/R	O			W A RAC	03/14/92
MILWAUKEE	SE	145.230	N9BMH/R	O PL 141.3			N9BMH	05/13/91
MILWAUKEE	SE	145.390	WB9AFB/R	O PL 127.3			WB9AFB	11/19/90
MILWAUKEE	SE	146.625	WB9ZRB/R	O			WB9ZRB	03/14/90
MILWAUKEE	SE	146.670	W9WK/R	O			ARES	07/05/92
MILWAUKEE	SE	146.790	W9HXX/R	O A CA PL 127.3		*	MSOE ARC	02/08/93
MILWAUKEE	SE	146.850	W9KHO/R	O PL 127.3			MICORS	05/17/91
MILWAUKEE	SE	146.910	WA9JOB/R	O E Z X PL 127.3			M.R.C.	07/05/92
MILWAUKEE	SE	147.000	W9PY/R	O PL 146.2			P.R.C.	03/31/92
MILWAUKEE	SE	147.105	K9IFF/R	C CA TT			K9IFF	03/21/92
MILWAUKEE	SE	147.135	NY9T/R	O PL 141.3			NY9T	06/28/92
MILWAUKEE	SE	147.165	WB9SDD/R	O PL 127.3 E			WB9SDD	03/12/92
MILWAUKEE	SE	147.210	W9ODD/R	O PL 127.3			M.U. RAMS	03/12/92
MILWAUKEE	SE	223.860	WB9UOS/R	O			WB9UOS	11/27/90
MILWAUKEE	SE	224.680	WB9AFR/R	O PL 127.3			WB9AFR	04/29/92
MILWAUKEE	SE	224.900	NK9G/R	O			NK9G	11/15/90
MILWAUKEE	SE	224.960	WB9TYT/R	O CA PL 114.8			WB9TYT	07/27/90
MILWAUKEE	SE	443.150	W9KHO/R	O PL 114.8			MICORS	05/17/91
MILWAUKEE	SE	443.300	WB9TYT/R	O PL 114.8			WB9TYT	05/17/91
MILWAUKEE	SE	443.550	K9HXA/A	C			K9HXA	04/04/92
MILWAUKEE	SE	443.700	WA9HUX/R	O PL			WA9HUX	11/28/90
MILWAUKEE	SE	443.800	N9GMT/R	O A E Z L PL 114.8			FM 38	03/09/91
MILWAUKEE	SE	444.200	K9HXA/A	C			K9HXA	04/04/92
MILWAUKEE	SE	444.300	W9WK/R	O Z PL 114.8			ARES	12/05/90
MILWAUKEE	SE	444.325	N9CFG/R	O PL 114.8			B.I.O.S.	03/12/92
MILWAUKEE	SE	444.800	K9HXA/A	C DPL			K9HXA	04/04/92
MILWAUKEE	SE	444.850	WB9TRO/R	C PL A E L			W.E.R.A.	03/12/92
MILWAUKEE	SE	444.875	WB9TRO/R	C			W.E.R.A.	03/12/92
MONROE	SC	145.110	NR9W/R	O			G C ARA	06/04/92
MT STERLING	SW	147.360	W9DMH/R	O			W9DMH	07/05/92
NEW BERLIN	SE	147.285	W9EBF/R	O PL 127.3			W9EBF	04/04/92
NEW BERLIN	SE	442.400	W9EBF/R	O PL 127.3			W9EBF	04/04/92
NEW BERLIN	SE	442.700	N9GSI/R	O A 114.8			N9GSI	02/26/92
NEW HOLSTEIN	NE	147.300	K9LGR/R	O A E Z			C.A.R.E.S	03/14/92
NEW LONDON	NE	146.625	WB9TCH/R	O			WB9TCH	03/14/92
NORTH FREEDOM	SC	443.675	KD9UJ/R	O PL 114.8 TT 71 L	*		S.W.R.G.	02/09/93
OCOMOWOC	SE	442.025	N9JUJ/R	O			N9JUJ	06/07/92
OSHKOSH	NE	147.240	KE9XH/R	O TT A E Z			WIN CTY E	08/20/90
OSHKOSH	NE	147.345	WB9ZHM/R	O PL 107.2			SOLAR	04/12/92
PARK FALLS	NC	147.000	WB9WHP/R	O			PRICE RA	08/25/91
PARK FALLS	NC	444.750	AG9G/R	O			AG9G	
PEPIN	NW	145.350	KB9S/R	O			WAB ARS	11/22/90
PEWAUKEE	SE	147.210	WB9AKC/R	O PL 173.8			WCTC ARC	03/12/92
PEWAUKEE	SE	443.125	WB9AKC/R	O PL 114.8			WCTC ARC	03/12/92
PLATTEVILLE	SW	145.270	WK9M/R	O A E			UWP-ARC	01/02/91
PLYMOUTH	NE	147.060	NF9R/R	O			SHEB ARC	09/26/92
PLYMOUTH	NE	224.940	KD9PE/R	O			SC 220 A	03/09/91
PLYMOUTH	NE	444.100	KD9TZ/R	O PL 107.2			S CTY 440	03/12/92
PLYMOUTH	NE	444.350	WE9R/R	O E L X PL 114.8			WERA	09/26/92
POWERS LAKE	SE	443.925	KC9XN/R	O PL 114.8 L			L&K ARS	03/22/92
POYNETTE	SC	224.660	KE9KX/R	O			KE9KX	09/07/92
PT WASHINGTON	SE	146.970	W9CQO/R	O A PL 127.3 EXZ	*		ORC	03/10/93

Location	Rg	Output	Call	Access	Update	OK=*	Sponsor	Updated
PT WASHINGTON	SE	147.330	WB9RQR/R	O A PL 127.3			OZARES	09/12/92
PT WASHINGTON	SE	443.525	WB9RQR/R				OZARES	10/04/92
RACINE	SE	53.210	N9GKH/R	O P			N9GKH	07/27/92
RACINE	SE	147.270	W9UDU/R	O A E Z I P R			L/S RP A	06/28/92
RACINE	SE	443.950	KA9JMK/R	O PL 127.3			KA9JMK	04/17/92
RACINE	SE	444.050	KA9LOK/R	O			KA9LOK	08/06/91
RACINE	SE	444.950	WA9BDX/R	O			WA9BDX	10/04/92
RHINELANDER	NC	146.940	W9ZZZ/R	O A E			RHIN RP A	03/14/92
RICE LAKE	NW	145.110	WA9CXN/R	O			WA9CXN	09/13/90
RICE LAKE	NW	147.030	WB9WFG/R	O			BAR ARES	03/22/92
RICHLAND CTR	SW	146.910	WB9SLI/R	O PL			P V RP A	12/14/92
RIVER FALLS	NW	443.800	K9ZMA/R	O			K9ZMA	03/22/92
ROSHOLT	NC	147.255	KF9HP/R	PROPOSED				
RUBICON	SC	145.350	WB9KPG/R	O A E Z			WB9KPG	03/29/91
SALEM	SE	223.720	N9BBQ/R	O			N9BBQ	12/31/92
SHAWANO	NC	145.350	KA9NHY/R	O PL 114.8			KA9NHY	05/08/92
SHEBOYGAN	NE	145.110	K9YS/R	O			SHEB DX	08/25/91
SHEBOYGAN	NE	147.255	N9REH/R	O P			N9REH	03/01/93
SHELDON	NW	145.470	N9LIE/R	O			N9LIE	03/31/92
SISTER BAY	NE	147.180	W9QBJ/R	O E			WA9PFQ	03/12/92
SLINGER	SE	146.730	W9MQD/R	O PL 127.3			WA CO RG	03/12/92
SOLO SPRINGS	NW	145.490	K9ASC/R	O			DC RACES	12/03/91
SPARTA	SW	147.000	KA9YPF/R	O			KA9YPF	03/31/92
SPARTA	SW	224.000	KA9YPF/R	O			KA9YPF	03/31/92
SPOONER	NW	147.135	KE6WF/R	O E Z L 223.2MHZ.			TNT	05/11/91
ST GERMAIN	NC	147.315	KA9UCE/R	O E			KA9UCE	09/22/92
ST GERMAIN	NC	444.400	KA9UCE/R	O			KA9UCE	03/09/93
STEVENS POINT	NC	146.670	WB9QFW/R	O A E Z			CNT WI RA	03/22/92
STEVENS POINT	NC	146.985	W9NN/R	O E			CNT WI RA	03/22/92
STEVENS POINT	NC	443.950	KC9NW/R	O			KC9NW	09/26/92
STOUGHTON	SC	434.000	N9BXA/R	O ATV			N9BXA	11/28/90
STURGEON BAY	NE	146.730	WB9YUY/R	O OR PL 107.2 E			WB9YUY	03/09/91
STURGEON BAY	NE	147.210	W9AIQ/R	O CA E Z			DOOR E G	04/17/92
STURGEON BAY	NE	444.000	WB9YUY/R	O			WB9YUY	03/09/91
STURGEON BAY	NE	920.000	WB9YUY/R	O			WB9YUY	03/09/91
STURGEON BAY	NE	1282.100	WB9YUY/R	O			WB9YUY	03/09/91
STURTEVANT	SE	29.640	WA9ZY/R	O			WA9ZY	05/27/90
STURTEVANT	SE	224.740	WA9ZY/R	O			WA9ZY	03/12/92
SUN PRAIRIE	SC	443.600	KA9QOT/R	O E PL 114.8			KA9QOT	12/14/92
SUPERIOR	NW	146.760	W9BK/R	O			T P A RA	06/04/92
SUPERIOR	NW	146.820	WA9VDW/R	O			T P A RA	06/04/92
SUPERIOR	NW	444.900	WA9KLM/R	O A E			WITC ARC	03/12/92
TOMAH	SW	145.390	N9BOE/R	O E Z911			N9BOE	12/14/92
TOMAH	SW	444.850	K9EBX/R	O PL 167.9			K9EBX	03/22/92
TOMAHAWK	NC	53.110	N9CLE/R	O P			TOM. R A	03/01/93
TOMAHAWK	NC	145.430	N9CLE/R	O A E Z911			TOM RP A	03/20/92
TOMAHAWK	NC	223.760	N9CLE/R	O			TOM RP A	03/20/92
TOMAHAWK	NC	444.575	N9CLE/R	O			N9CLE	03/20/92
TREVOR	SE	145.290	KA9VZD/R	O PL 107.2 A E			STLIN ARC	03/22/92
TREVOR	SE	442.600	KA9VZD/R	O E A PL 2A L FM 38			KA9VZD	03/22/92
UNION GROVE	SE	442.200	N9OEZ/R	O PL 103.5 DPL			N9OEZ	12/22/92
WABENO	NC	145.110	KF9DB/R	O XPL 107.2 32U/32#D			NE WRL	12/14/92
WALES	SE	224.120	WB9DRO/R	O PL 114.8			WB9DRO	03/12/92
WAUKESHA	SE	147.390	N9KS/R	O			E.A.R.S.	04/04/92
WAUKESHA	SE	224.460	KE9TA/R	O PL 85.4 CA			KE9TA	07/09/90
WAUPACA	NC	145.410	KE9UT/R	O A E			MIDWI ARG	12/14/92
WAUPACA	NC	146.835	N9BKJ/R	O A E L R X WX ARES			N9BKJ	03/12/92
WAUPACA	NC	146.925	KE9UT/R	O A E Z WX			MIDWI ARG	12/14/92
WAUPACA	NC	147.390	WA9FDC/R	O X ARES/RACES			WP'ACA RC	03/12/92
WAUPACA	NC	442.000	KE9UT/R	O			MIDWI ARG	09/26/92
WAUPACA	NC	444.825	N9BKJ/R	O L			N9BKJ	03/12/92
WAUSAU	NC	146.640	W9SM/R	O E CA L Z X			V.V.R.A.	04/18/91
WAUSAU	NC	146.820	W9BCC/R	O E Z CA L X			R.M.R.A.	03/12/92
WAUSAU	NC	147.060	W9KRY/R	O CA E			KC9NW	09/26/92
WAUSAU	NC	224.640	W9SM/R	O E CA L Z X			WI VAL RC	04/18/91
WAUSAU	NC	421.250	AD9W/R	O E L AURAL + 4.5			RMATS	06/28/92
WAUSAU	NC	923.250	AD9W/R	O E L AURAL + 4.5			RMATS	06/28/92
WAUSAU	NC	1250.000	AD9W/R	O E L AURAL + 4.5			RMATS	06/28/92
WAUSAU	NC	421.250	AD9W/R	OEL VID-FM AUD+4.5			RMATS	06/28/92
WAUSAU	NC	421.250	AD9W/R	OEL VID-FM AUD+4.5			RMATS	06/28/92
WAUSAU	NC	443.750	KC9NW/R	O CA E			KC9NW	09/28/92
WAUSAU	NC	444.100	W9SM/R	O CA Z911			WVRA	11/03/90
WAUSAU	NC	444.300	W9BCC/R	O E Z L			W9BCC	03/12/92
WAUSAU	NC	444.700	KC9NW/R	O E CA PL 179.9			KC9NW	09/26/92
WAUSAU	NC	53.450	W9BCC/R	O			R.M.R.A.	10/04/92
WAUSAU	NC	906.000	W9BCC/R	O			R.M.R.A.	10/04/92
WEBB LAKE	NW	145.190	N9EDV/R	O			N9EDV	03/12/92
WEST ALLIS	SE	224.520	KA9JCP/R	O			KA9JCP	03/31/92
WEST ALLIS	SE	442.650	N9EJO/R	O PL T			N9EJO	05/27/90
WEST BEND	SE	443.425	N9NBN/R	O PL 114.8 CA (P)			N9NBN	03/03/93
WEST BEND	SE	444.900	N51IA/R	O PL 114.8			N51IA	04/04/92
WI RAPIDS	NC	146.790	W9DQA/R	O			MID-ST RA	10/20/92
WI RAPIDS	NC	147.330	K9PJB/R	O CA E Z			WI AIR RA	06/28/92
03-24-93								



# Speech Day Remembered: Ham Radio Makes the Grade

By Francis Goettl, N9KPK  
16412 Bethel Road, Elkhart Lake, WI 53020

The day was December 21, 1992, the "Skill Day" I was to give a demonstration speech to the Employability class at Lakeshore Technical College. Of course, I picked my favorite topic, Amateur Radio, for the speech topic.

Since the day was on the cold side, too cold for me to keep the TS-530SP HF transceiver in the car for the entire morning waiting for the afternoon demonstration, I brought the transceiver, a tuner, and a portable ten-meter antenna into the electronics lab. A fitting home was found on a table at the center of the lab. There, the station was set up for the morning hours.

As one would only expect, many students and a few puzzled instructors stepped up to ask what the antenna and radio were for. I quickly explained to each one that I was an Amateur Radio operator and would be giving a demonstration speech later in the day for another class. From there, I did my best to answer any questions the onlookers had, and tune in stations when I could to let the people hear what Amateur Radio operators sound like over the radio. Since I was basically in a "tin can" for a building, reception had a lot to be desired, but there were a few local and DX (long distance) stations that could be heard.

I was glad to see that all who walked away were impressed with what Amateur Radio could do and held interest in the hobby.

When afternoon came, the station was moved to the room where the speech was to be delivered, a room that was even more secluded. The room had *no* windows. I didn't ask to move to another room, because LTC does not have windows that open, so external antennas were out of the question.

At the front of the room, on one small table, the rig, tuner, mike, and straight key were set up. The dipole was set in a corner to be kept as far from the room's occupants as possible.

The next hour was spent tuning the TS-530SP and listening to a few stations on ten meters. The antenna came down to a nice 1.3:1 SWR (energy refelected back from the antenna to the transmitter).

When speech time came, I stood at the front of the room with the station.

I began by giving a brief explanation of what Amateur Radio is: a non-profit volunteer communication service made of self-policing trained operators who provide reliable communications in times of emergencies and especially during and after natural disasters.

The idea of ham operators being "crazy old men stuck in a shed with only their radio equipment" was debunked as soon as possible. The message I conveyed was that Amateur Radio has been and is on the leading edge of communications and electronic technology, everything from our famed companion, Morse code, to the newer OSCAR (Orbiting Satellite Carrying Amateur Radio) satellites.

Another point I stressed was that, in disasters, when the telephone lines are down and other modes are also down, failing, or simply gone, Amateur Radio enters the picture. Amateur Radio operators have the equipment, know how to use it, and get the job done well and efficiently. To verbally illustrate that idea, I used the real disaster of the June 8, 1984 Barneveld tornado.

With that, I went to the transceiver and talked through the tuneup procedure. From there, I explained exactly what I was going to do and say. Call "CQ," identify myself, say "portable," and wait for a response. No miracles happened that day. I called CQ seven times to no avail. Feeling that my grade was slipping, I quickly explained the probable causes of why no one was responding: propagation (effect of ionospheric conditions on radio waves), or the building I was in. I opted for the latter.

After that, the questions came rolling in. "Don't you need a license?.. What's the difference between CB and Amateur Radio?.. Why do you need to know the Morse code; it's hard to learn and boring, isn't it?.. Amateur Radio causes a lot of interference, right?"

There were more questions, but these were the most pressing to the audience. My responses: "Yes, you do need a license.. There is a *large* difference between CB and Amateur Radio.. Hams are trained, disciplined, and need to follow guidelines.. CBers (at least the ones I know) are untrained, pretty much freewheeling, and follow their own rules. That can lead to chaos in an emergency.. Morse code is actually *not* all that hard to learn; you have to



Francis Goettl, N9KPK

## Instructor: Radio Amateur is Professional Speaker

12/21/92

Oral Presentation, Communication Skills

Francis:

You did an excellent job of sharing your avocation with the class; not only did you personally communicate well with the group, but your topic, the operation of a ham radio, was so appropriate given the nature of the class.

I think I may have unwittingly been one of those persons who thought that ham radio operators were of a distinct age group! Certainly you clarified that point for all of us. Another thing I must commend you on is the relevancy with which you wove your presentation. We all came away a bit in awe of just how technology-oriented your "hobby" is.

You really fielded questions well. As I'm certain you were aware, your topic generated more discussion than all the others combined. You proved yourself very knowledgeable and competent in explaining procedures and licensing.

It would have been fun to actually get a response on the receiver when you called out, but I think the fact that we did not get a response did not in any way diminish your message or what we learned from your presentation.

I'd like to see you continue to share your speaking talents and hobby with other groups; you're a real professional!

- Cindy Peissig

Communications Skills Instructor, Lakeshore Technical College

befriend it first, then those menacing dots and dashes will become more like a soothing song.. Boring? Usually a little more of a fun challenge.. Code is required for enhanced privileges in the HF bands.. Interference? Many times some other device in the area is defective and giving off interfering RF (radio frequency) energy.. Hams get the blame because they tend to be more visible, with towers and larger antennas."

That generally put a cap on the day. From what I've heard, the audience enjoyed the the speech, and interest was induced. What more could I ask (besides a decent grade)?

My thanks go to the following people for making the speech possible: the Sheboygan County Amateur Radio Club for their willingness to assist, give advice, and lend a few portable antennas; Cynthia Peissig, the instructor who allowed the use of Amateur Radio as a speech topic and, not to be forgotten, my parents, Francis Sr. (KA9SCX) and Charlene (KA9SCY), for allowing me to remove half the home station for a day.

Thank you all!

Please see the instructor's comments above.

## ARRL Supports FCC Fines

The American Radio Relay League (ARRL) has filed a motion to support the FCC in a lawsuit filed by broadcasters who seek to overturn the way the FCC enforces indecent broadcast prohibitions through financial penalties. ARRL says that a decision in favor of the broadcasters could harm the FCC's ability to combat indecency on Amateur Radio frequencies.

In a motion filed in United States District Court for the District of Columbia on March 16, ARRL asked to participate in a suit brought by Action for Children's Television and 20 other broadcasting and public-interest organizations. The broadcasters allege that monetary forfeiture proceedings used by the FCC in indecency cases violate constitutional due-process and free-speech protections.

Since prompt judicial review of forfeiture orders is not available, the broadcasters say, they

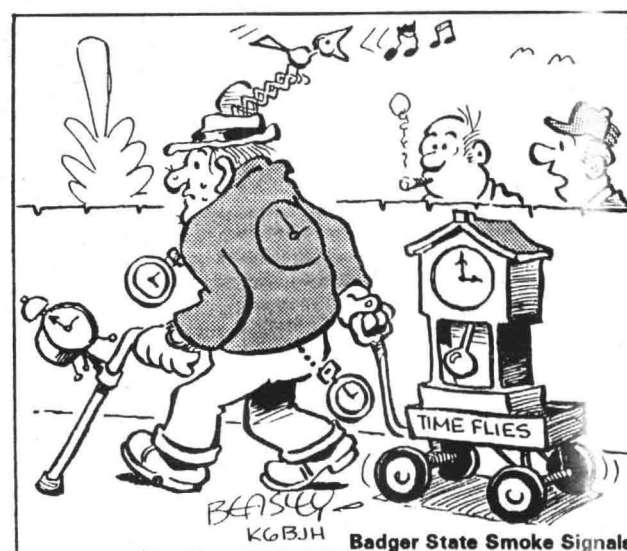
must engage in self-censorship. They claim that the FCC has used the process to punish or threaten them in violation of the Communications Act of 1934. The broadcasters have asked the court to prohibit the procedures now used by the FCC to rule on alleged indecency violations under 18 U.S.C. 1464, to enjoin the FCC from initiating or conducting forfeiture proceedings under 47 U.S.C. 503(B) for alleged violations of of 18 U.S.C. 1464, and to order the dismissal of all indecency forfeiture proceedings under 47 U.S.C. 503(B) currently pending before the Commission.

"While the relief sought by the plaintiffs specifically concerns the broadcasting service," says ARRL President George Wilson, W4OYI, "We're concerned that it might also have the effect of harming FCC efforts to enforce rules in the Amateur Service that have been strongly supported by radio amateurs."

ARRL has requested to be permitted either to intervene in support of the FCC or, alternatively, to submit a brief amicus curiae in support of the

interests of radio amateurs.

- ARRL Bulletin ARLB035, 4/1/93



I UNDERSTAND HE WORKED FOR WWV FOR THIRTY YEARS



# Clubs and Organizations

## Taylor County Area Amateur Radio Club

Bernard Jari, KA9WDX, Secretary

W3159 Hanley Lane • Medford, WI 54451-9689

### TAYLOR COUNTY AREA AMATEUR RADIO CLUB MEETING ANNOUNCEMENT

The regular monthly meeting will be held on Thursday, May 6, 1993 at 7 p.m. in the Emergency Government meeting room/Red Cross office, located in the basement of the sheriff's annex to the Taylor County Courthouse, on the corner of 2nd and Ogden Streets, across the street from the phone company in Medford, WI. Talk-in will be on the 147.750/147.150 repeater, located at the N.T.C. Branch Campus.

### MEETING MINUTES APRIL 1, 1993

The meeting was called to order at 7:04 p.m. by the president, Tom Hrdina, N9GEN. Present at the meeting were: Joanne Lundgren (N9QVX) from Sheldon, Ernest Mehner (WD9FWP) and Bob Braun (KB9BLV) from Dorchester, Tom Hrdina from Gad, Ray Gajda (N9IDW) from Lublin, and Leroy Markow (N9FZD), Cliff Steevens, (WA9YCT), Bernard Jari (KA9WDX), and guest speaker Lester Laub, all from Medford.

The minutes of the March 4, 1993 meeting were approved as printed in the *Badger State Smoke Signals*.

The treasurer's report was approved as read by Joanne (N9QVX). Joanne mentioned that some of the members haven't renewed their dues, and some members haven't renewed their newsletter subscriptions. This is just a reminder that if you want to continue to receive the newsletter, which is reprinted in the *Badger State Smoke Signals*, make sure that you have your membership up to date and have paid your newsletter subscription. The present cost of membership is \$10.00 per year, which covers all members in your household and the use of the repeater with auto-patch, and the newsletter subscriptions cost you an extra \$5.00.

Joanne stated that she will send a list of call signs that she shows as having their 1993 dues paid and those that show that they have their newsletter subscriptions paid.

This is also a reminder that the club is now billed quarterly for the BSSS subscriptions, and that you shouldn't receive renewal notices as in the past. The club secretary will have the list printed here in BSSS next month. Please let the treasurer know of any corrections that may have to be made to the list.

### OLD BUSINESS

None.

### NEW BUSINESS

There was a discussion on the June meeting. Topics covered were: Where to hold the meeting, what time the meeting should start, and what type of meeting it should be. Ernie (WD9FWP) makes a motion to make the June meeting a family affair. Lee (N9FZD) seconds the motion, and the motion carried. Along with the motion, it was decided that the June meeting will be held at the Jaycee Park, which is located near the corner of Park and Allman Street, north of the City Park, in Medford.

The main reason for the change in the meeting location in June is so we can look over the Field Day site. Also, the meeting will start one hour earlier (6 p.m.), instead of 7 p.m. to allow more daylight. The meeting may be a short one. The meeting will also be a picnic, so you will have to decide what you want to bring along to drink, type of meat you may want to eat, and possibly a dish to pass around. The club may provide some soda, if we know about how many will be attending, but that hasn't been decided yet. We may have a vote on that next month.

Next, there came a discussion on the upcoming St. Jude's Bike-A-Thon that will be held on May 22, 1993 in Medford. The Bike-A-Thon route will follow the river. Lee, N9FZD, stated that they are looking for at least two Amateur Radio operators in the morning, and two in the afternoon, or two operators for all day, to provide the communications. The approximate shifts will be from 8:30 a.m. - 12 noon, and from 12:30 - 4 p.m. If you can help out with this, let Lee know what shift or shifts that you can cover on Saturday, May 22, 1993, at (715) 748-3868, or by mail to Lee Markow, 314 East Lincoln Street, Medford, WI 54451.

Next, there was a discussion brought up on the possibility of applying for a grant from the Anne Marie Foundation. It was mentioned that someone should contact Mike, N9GHZ, from Abbotsford, and see if we should go ahead with this, and find out when we had applied for it the last time.

Lee, N9FZD, makes a motion to close the meeting. The motion was seconded by Ernie, WD9FWP, and the motion carried. The meeting was adjourned at 7:43 p.m.

Respectfully submitted:  
Bernard L. Jari, Secretary

## Racine Megacycle Club

Arne Moxness, KA9ZPY, Secretary

3345 Newman Road • Racine, WI 53406

### MEETING MINUTES APRIL 12, 1993

The meeting was called to order at 7:30 p.m. by Vice-President Gary, N9MGH, as President Dick, W5ONL, was under the weather. Also not in attendance was Secretary Arne, KA9FNE. That left Treasurer Dave, WB9ZIO, to take the minutes this month.

Minutes from the previous meeting were approved after a few corrections.

The treasurer's report shows a balance of \$507.83.

Our Field Day Chairman, Jim, KB9CCY, brought us up to date on our Field Day plans for this year. Dennis, WB9SVM, and Dave, WB9ZIO, have volunteered their computers for logging again this year. Many thanks, guys. Signup sheets were available for those wishing to help set up, operate, and tear down.

Gary, N9MGH, gave more information on the Racine Hamfest being held in conjunction with the "Big Boys Toys" project on May 21, 22, and 23. There are still plenty of tables available for anyone wishing to sell. Prices are \$20.00 for all three days.

Bob, W0WLN, presented the proposed changes to the constitution and by-laws. Since we did not have 2/3 of the paid-up members present for a vote, no action was taken.

Larry, WA9JMO, brought up plans for the 1994 Racine Area Ham Banquet. He would like to see a committee of three from each Racine ham club get together in June or July of this year to get the ball rolling on next year's festivities.

"Ham of the Year" Cheryl, WS9P, has a list of student hams who are in need of "Elmers" to help them get on the air and prepare themselves for upgrading to higher classes in the ham ranks.

Joe, KB9HSJ, and Dave, KB9HSG, did a fine job operating the club station during the Wisconsin QSO Party. Jim, W9LXY, brought in QSL cards from several stations that were worked during the contest. Unfortunately, Dave and Joe did not make copies of their log from the contest. One small mistake isn't bad, guys. Don't worry, though. For Field Day, the computer will save us a copy.

Racine Lutheran High School will be having a walk-a-thon on Friday, May 7th, and Larry, WA9JMO, is looking for about six hams to help out with the communications. The walk begins at 7:30 a.m. Contact Larry if you would like to help out.

Larry, WA9JMO, returned from St. Petersburg, and is looking for hams to set up a schedule on 10, 15, and 20 meters to work the stations of friends he met in St. Petersburg. By the way, this is St. Petersburg in Russia. Larry's plans also include having a sister club in Russia.

The program for the evening was a video about packet radio and how you can

## HAM CALENDAR

Courtesy Racine  
Megacycle Club

May	1	.....	Testing at Red Cross
May	1	.....	Hamfest at Cedarburg
May	3	.....	Packet Group
May	8	.....	Hamfest at Manitowoc
May	10	.....	Megacycle Meeting
May	20, 21, and 22	.....	Hamfest at Racine

Jun	5	.....	Testing at Red Cross
Jun	6	.....	Hamfest at Princeton
Jun	7	.....	Packet Group
Jun	12	.....	Fox Hunt
Jun	13	.....	Hamfest at Stevens Point
Jun	13	.....	Hamfest at Willow Springs
Jun	14	.....	Megacycle Meeting
Jun	25	.....	Fox Hunt

Jul	5	.....	Packet Group
Jul	10	.....	Hamfest at Oak Creek
Jul	12	.....	Megacycle Meeting
Jul	23	.....	Fox Hunt
Jul	24	.....	Hamfest at Eau Claire
Jul	27	.....	Lakeshore Club

Aug	2	.....	Packet Group
Aug	8	.....	Hamfest at Peotone
Aug	9	.....	Megacycle Meeting
Aug	20	.....	Fox Hunt

Sep	4	.....	Testing at Red Cross
Sep	4	.....	Fox Hunt
Sep	6	.....	Packet Group
Sep	12	.....	Hamfest at Joliet
Sep	13	.....	Megacycle Meeting
Sep	17	.....	Fox Hunt

Oct	2	.....	Testing at Red Cross
Oct	4	.....	Packet Group
Oct	10	.....	Hamfest at Waukesha
Oct	11	.....	Megacycle Meeting
Oct	15	.....	Fox Hunt
Oct	26	.....	Lakeshore Club

Nov	1	.....	Packet Group
Nov	6	.....	Testing at Red Cross
Nov	7	.....	Hamfest at Kaukauna
Nov	8	.....	Megacycle Meeting
Nov	7	.....	Hamfest at Kaukauna
Nov	12	.....	Fox Hunt
Nov	27	.....	Fox Hunt

Dec	4	.....	Testing at Red Cross
Dec	6	.....	Packet Group
Dec	10	.....	Fox Hunt
Dec	13	.....	Megacycle Meeting

get started on this mode of communication. Many thanks to Bruce, K9RRS, for bringing in the video. Bruce maintains the BBS on 145.53 for the Racine area hams.

The Goody Box was raffled off. The winner(?) was Bob, W0WLN.

The meeting adjourned at about 9 p.m., and quite a few went to Reflection Restaurant for coffee and more socializing.

Respectfully submitted:  
Dave, WB9ZIO,  
substituting for Arne, KA9ZPY

## Eau Claire Swapfest Date Clarified

The date of the Eau Claire Swapfest is **Saturday, July 24, 1993**. The date, as we have been publishing it on our back page, is correct. However, another source of swapfest dates has been publishing the wrong date.

## Exams to be Given at Eau Claire Swapfest

Amateur Radio license examinations will be given at the swapfest on Friday, July 23 (the evening before the swapfest), and on Saturday, July 24. These dates were not received in time to list in the Test Point. Please refer to the Test Point and to the Eau Claire club's minutes in this issue for more information.

THE BARGAIN  
MODE

**SSB**

SELL SWAP BUY

OUR WANT ADS GET RESULTS

**FOR SALE:** Tempo 2020 transceiver with DC power cord, mike, and manual for \$350.00. Drake twins, T4X-B, R4B, with matching power supply and speaker. Extra xtals for ten and 160 meters. \$350.00. Both in good shape. Ron Martinmaki, W9EOA. (608) 788-2693.

**WANTED:** HWA-7-1-QRP power supply, HW-8 - HW-9 transceivers. DX-100, Ten Tec 509, 515, 405 QRP transceivers. Millard Christianson, WU9L, 424 W. Pine, Sturgeon Bay, WI. (414) 743-1310.

**THERE IS NO CHARGE** for non-commercial ads in Sell, Swap, Buy. Send your ad(s) to Ken Ebner, K9EN, or Jim Romel-fanger, K9ZZ. The addresses are on page 2.

## Racine Megacycle Club Profiles

By Bill Komistra, W9OVZ, 5101 Graceland Blvd., Racine, WI 53406

### J.S. (Dick) Sisson, W5ONL

In 1889, a flag was unfurled by Alexander G. Eiffel atop the Eiffel Tower in Paris, France, signifying its completion. What does it have to do with Amateur Radio? Nothing. But it sure would make a nice antenna location.

Now, the important stuff.

Dick Sisson, W5ONL, was born on July 3, 1934, with, I would guess, a lot of

fanfare.

Dick was first licensed on May 12, 1948, as W5ONL (Class B). At this time, there were only three classes of amateur licenses: Class A, which was comparable to the present-day Amateur Extra; Class B, comparable to General Class, and Class C, or Conditional. Other call signs Dick held over the years have been W8FFL,

Please turn to page 11



# Sheboygan County Amateur Radio Club

Steve Meifert, KF9KZ, Secretary

1525 New Jersey Avenue • Sheboygan, WI 53081

The April 13, 1993 meeting of the Sheboygan County Amateur Radio Club was called to order at 6:30 p.m. by President Chad Christianson, N9HMR.

The minutes from March were read by Steve, KF9KZ, and the treasurer's report was given by Luiz, KA9HUF.

Net Control Operators were solicited for our 7 p.m., Monday evening net on 147.06+ (PL 107.2). Check in!

## COMMITTEE REPORTS

The Technical Committee reports that the repeater's PL access has been activated, and is working properly. The repeater is also transmitting a tone of 107.2 for those who have a tone decoder or tone squelch capabilities.

## OLD BUSINESS

The winners of the Fox Hunt on Saturday, March 13, were Steve, KF9KZ, and Chris, KB9IKQ. The next hunt will be on Saturday, May 22. Check-ins will be taken at 12:30, and the hunt will begin at 1 o'clock.

The annual computer fair will be held at the Mead Public Library on May 1st. If you are interested in participating, see Al, NF9R.

Nominations for club officers (Vice-Pres., Sec., Treas., and Exec. Board) are open now through the May meeting. If you would like to nominate someone, or yourself, or if you have any questions, contact Penny, KB9BJM.

## NEW BUSINESS

Al, NF9R, has volunteered to be the club's new Emergency Coordinator. He will be in charge of all emergency and disaster-related communications. Al demonstrated the severe weather notification

feature on the repeater. Whenever severe weather threatens our area or a severe weather net is in progress, the repeater will send "WX" in cw each time before the squelch tail drops. He has also prepared instructions for emergency repeater use, and an Emergency Communications Survey. If you can help, please fill out and return the survey to Al. Even if you can't help out, please read the emergency net instructions and the latest repeater operation notes, both available from Al.

The annual Bike Ride Plus will be held on May 15th. Volunteers are needed to provide communication along the course. Contact Chad, N9HMR.

The Club's Activity Award is presented monthly to the Member who has shown proof of the most number of contacts for the preceding month. Bring your log to each meeting for verification. If you have any questions see Penny, KB9BJM.

There was some discussion as to how to handle the problem of dues. Some members pay on time, on or before the June meeting, and have uninterrupted service of *Badger State Smoke Signals*. Those who do not pay their dues on time will not be included until the next quarter. There will be more discussion on this issue at the next Board meeting; although only board members may vote on a proposal, you are encouraged to attend to view your opinion.

The meeting was adjourned at 7:45 p.m.

After the conclusion of our regular business some members remained for an introductory course on disaster services, presented by Jon Weeden of the Red Cross.

Respectfully Submitted:  
Steve Meifert, KF9KZ

# Racine Megacycle Club Profiles

Continued from page 10

K0HEM, WA2GWF, W4WZC, and VK8-AF. Dick upgraded to Extra Class in June of 1954.

The present equipment at Dick's station is as follows: Collins 32S-3/75S-3; Dentron 160XV, BTI LK2000, Swan 250C, Icom 211, IC-20 (packet), and an IC-3200A (mobile). His Texas antenna layout (see the September 1992 issue of *BSSS*, page 12) is quite impressive. All antennas, fixed and rotatable, are on a tower approximately 87 feet high, with two sets of guy wires. All frequencies from 1.8 MHz through 148 MHz can be used. This setup is too lengthy to describe here, so please refer to the above-mentioned issue of *BSSS*. The work and time involved was tremendous, but the performance was very satisfactory. He calls it "The One-Tower Antenna Farm."

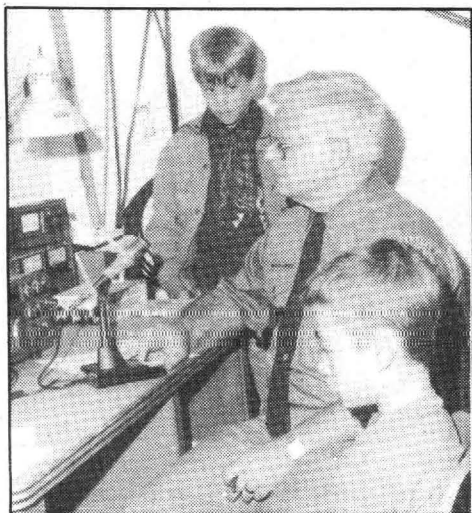
With all of that equipment, what do you think Dick's preference of operation is? It is Morse substitution cipher and, if you have ever seen him operate, you would see that he is one smooth and efficient operator.

Over the years, he has accumulated a lot of wallpaper which would make some hams envious. He has WAS, WAC, DXCC (250+), CP 35 WPM, four Sweepstakes Section awards, one VHF Contest award, and one Public Service Award.

Dick didn't mention any particular construction projects other than "numerous over the years." But I believe he could put together anything that he put his mind to.

There are many different ways of getting started in Amateur Radio, but Dick got interested via Cub Scouting, an arm of the Boy Scouts of America.

He has been a member of RMC since 1990, the Richardson Wireless Klub (Texas) since 1967, and other clubs since 1948. He is now president of RMC.



Dick Sisson, W5ONL, shows how Amateur Radio works to some youngsters. Dick has the "lighter" hair and is in the center.

He brings home the bacon as a computer consultant.

His memorable ham experiences are as follows: He took second place in Morse substitution cipher copying contest at an ARRL national convention with 62 words per minute copying speed - with a pencil!! He was also an Elmer for former ARRL President Larry Price, W4RA, and topped topped it off with a DXpedition to Lichtenstein. How's that for extraordinary?

His next remark comes straight out of the questionnaire. How do you relax? Quote: "You mean besides sex?" Unquote. Anyway, he also enjoys CW ragchewing and contesting. He is also visible and active during Field Day.

Other interests include reading, writing, swimming, and social dancing (seems like social dancing among hams is getting popular).

There is one other ham in the family, his son, John, WH6AYI.

The next time you meet Dick, pat him on the back and tell him that you are glad to know his as a ham. He is truly an asset to the club.

# WATTS SNOO



WB9QFW 2-Meter Repeater 146.07-67 and Club Station

P. O. Box 847 • Plover, WI 54467

## MEETING MINUTES APRIL 14, 1993

Sandra Smolen, Portage County Emergency Government Director, was our special guest tonight. She thanked us for our excellent spotting work during severe weather in the past, and reviewed with us plans and procedures for the coming storm season.

Can you name the three ways there are to call up the weather spotter network? I'll give you a hint. They are: 1) Ms. Smolen contacts us, 2) the Sheriff's Department contacts us, or 3) we decide to do it on our own.

As a reward for putting her on first so she didn't have to sit through our business meeting, she shared a video with us on tornadoes, titled "It Sounded Like A Freight Train."

Dave Olson, N9JQU, gave a report on the Wisconsin state Special Olympic Games that will be held in Stevens Point again this summer, June 10-12. This year most of the athletic events will be held at Goerke Field, but there will still be activity on campus. Wisconsin Special Olympics will have forty VHF radios (6 channels) for their communications, which will reduce the need for shadows. We will be checking the radios in and out, and they have asked us to come up with a plan for best use of the 6 channels available.

The club officials will be getting together to discuss our club equipment checkout policies. Anyone with suggestions or comments please let one of us know so we can know what is on everyone's mind.

Speaking of what is on everyone's mind, Joe Larson, N9JW, collected comments on what our club should be doing. He (I) will be typing them to destroy the handwriting evidence, and will distribute the results at the next meeting. Lots of good suggestions and thought-provoking comments in there.

Joe shared the response to his letter to the ARRL concerning the use of foreign languages on repeaters. The gist of the response was that only the station identification must be in English; any other language is legal for users of the repeater. Of course, it is ultimately up to the repeater's Control Operator to set the repeater's policies.

Joe also volunteered to drive if anyone wanted to go to the UW-Madison Engineering Expo and needed a ride. Mike Urban, KB9GXV, Sam Larson, N9JQO, and Joe made the educational and interesting trip. The only tough part was tearing ourselves away from the world's largest trivia contest, which was happening that weekend in Stevens Point. We only missed about 8 hours out of the total 54 hours in the contest.

John Feltz, WA9LWJ, asked if we would consider selling him our duplicate issues of *QST*. The club agreed in principle, and asked John to go through our collection, perhaps cleaning it up a bit in the process, and make us an offer.

Art Wysocki, N9BCA, club president and swapfest chairman, is looking for someone to do talk-in on 146.67. He also wants some able-bodied club members to show up at the UWSP University Center at 6 A.M. to help the vendors unload. We will have a "club table" for members to share. Otherwise, tables are \$4 before May 15 and \$6 afterward. Tables are six feet long.

Jim Benak, KA9ACE, Portage County Emergency Coordinator, asked for volunteers to help with communications at the Heart Ride June 27. Yes, that's Field Day weekend. And yes, he picked up a few quick volunteers. Not as quick, I bet, as the bike riders participating in the race. Be there to start at 0800, all finished by 1300, then go back and help take down the Field Day site. What more could you ask for to do on a beautiful, warm, sunny, central Wisconsin summer day?

See you next month, back in A109 of the UWSP Science Building on the corner of Reserve Street and Fourth Street in Stevens Point, at 7:30 p.m. on May 12, 1993.

Isn't it ironic when you look back and realize that the USA was founded by people protesting high taxes?

Respectfully submitted:  
Joe Larson, N9JW, Club Secretary

## IN ATTENDANCE

Joe Larson	N9JW
Frank Guth	W9BCC
Gordon Miller	KE9IA
Steve Kochanowski	KB9IIE
Jim Benak	KA9ACE
Dave Golla	N9OVT
Lori Jasper	KA9ZGD
Scott Jasper	NE9U
Ray Dix	KF9BG
John Feltz	WA9LWJ
Art Wysocki	N9BCA
Frank Podach	N9JQR
Mike Eiden	WD9JID
Gene Kroll	KE9MA
Deb Kroll	N9EIL
Mary Eiden	KA9FAS
Leo Liebl	W9NYS
Ken Slusarski	N9SDW
Joe Omernik	N9CGV
Ron Howe	NJ9H
Dave Olson	N9JQU
David Tamres	KB9IIF
Mike Pagel	KA9LAQ
Mike Urban	KB9GXV
Loren Larson	N9SEA
Jill Matthews	

## Last Minute News Items and Other Stuff

• **HAMFEST ADVERTISERS** on our back page are reminded that they are entitled to one display ad for their events at no charge. It is their responsibility to send a clean copy of the flyer advertising the event to the editor. The flyer is reduced slightly to make it into a two-column display ad. The flyer MUST be received at LEAST four weeks before the event, and preferably eight weeks, depending on if the event is early or late in the month.

• **DREAM FLIGHT WAUSAU 1993** will occur in early May. Coordinated again by Fred Prehn, WX9W, this is a simulated space shuttle trip. This year, the shuttle will visit not only "planets," but "colonies" as well. Planets and colonies are at schools throughout the Wausau School District. Last year, the event was covered in *BSSS*, and later in a story written by Fred in *QST*. Fred was also honored by AEA as Amateur Radio Ambassador of the Year. He received a trip to the ARRL National Convention and a cash award

from AEA. Amateur Radio is the primary mode of communication between "Mission Control," the "shuttle" (a much-modified school bus), and the colonies and planets.

• **NEXT MONTH** here in *BSSS*, we expect to resume printing Ron Hooker's technical column, as well as to begin running articles written by Stan Kaplan, WB9RQR. It also appears that the Wisconsin QSO Party results will be ready for next month's issue, too. We have received no photos to print with the results, sorry to say.

We also are looking forward to a story and a photo or two about a Wisconsin ham's trip to Russia and his visits with ham operators there.

• **THANK YOU** to all those who sent articles, stories, and photos for publication in recent months. And a special thanks to cartoonist extraordinaire Bob Beasley, K6BJH, for his original works. They help us take our hobby a bit less seriously - and we need that!



## Mancorad Radio Club

John Meyer, NZ9Z, Secretary

P.O. Box 204 • Manitowoc, WI 54221-0204

### MEETING MINUTES APRIL 14, 1993

The April meeting of the ManCoRad Club was called to order at 7:30 p.m. by club president Chuck, N9KGL. The treasurer's Report was approved as read. The minutes of the last meeting were approved as printed in the *Smoke Signals*.

#### OLD BUSINESS

President Chuck noted that all the club's equipment is now covered under the ARRL insurance program.

He then updated club members on the club 2-meter repeater. The fan has been installed on the amp -- hopefully, that will help with the thermal shutdown problem. Photo ID's will have to be on file at the Manitowoc Police Dept. for those needing weekend access to work on the repeater.

Plans for the May 8th Lakeshore Hamfest and Computer Swapfest continue to move along well. More volunteers are needed for specific hamfest tasks. Contact Chuck, N9KGL, or Janice, N9IQZ, to help out. Help support your club's major fundraiser!

Some of the doorprizes were described. Additionally, Chuck, W9BZU, has donated an MFJ Dual Time Clock and a power supply as prizes. Thanks, Chuck!

For the first time, the club will be conducting a raffle at the hamfest -- N9KGL has the permit in hand. The raffle prize will be an MFJ Digital Antenna Analyzer, Model 249.

John, NZ9Z, noted that license exams are all set up to be given in the main cafeteria at Silver Lake College.

Please note -- setup for the hamfest will be Friday, May 7th at 6 p.m.

There was not much for news on the disposal of the trucks. One interested party viewed them, but he was unable to make contact with Chuck to make final arrangements.

A wrapup for the licensing classes was given by Steve, N9PBL. Ten students passed their Novice exams and some have already upgraded. Especially noteworthy was Glenn DeBaker, who has already progressed all the way to his General Class ticket --and he's still waiting for his call-sign! Congratulations to all!

NZ9Z reminded the new licensees that there is a list of hams posted in the clubroom who have volunteered to operate either the club station or their home stations in order to help the new hams "get their feet wet" and get on the air.

The ARRL membership rebate program was explained by Janice and your secretary. Twelve dollars in rebates were earned last month by members joining or renewing with the ARRL through the club. New memberships are especially encouraged, as the rebate for these is \$5 each.

Our president described new club equipment, including a triplexer, digital antenna analyzer, and 250-foot gin pole rope. Much of the club's equipment is available to be signed out for members' use. Chuck also noted that the stencil for identifying the new chairs in the clubroom has been made.

He also advised members that chairpersons are needed for several committees, especially for the Cobia Submarine Special Event. Chuck promises to help the new chairperson out. (No chairperson, no event.) More help is also needed on the club constitution update committee.

John, NZ9Z, described the ARRL Special Service Club program and the application for it that he has put together for the club. Club officers have copies of the application.

John, NZ9Z, described the ARRL Special Service Club program and the application for it that he has put together for the club. Club officers have copies of the application.

#### NEW BUSINESS

Larry, K9LWI, read the notice from the U.S. Coast Guard stating that they are discontinuing monitoring 500 kHz for distress calls and using CW on marine frequencies.

The second reading of the membership application of Glenn DeBaker was read and approved unanimously. Welcome to the club, Glenn! Hope your callsign comes soon!

Chuck, N9KGL, announced the program after the meeting -- a video he made on building your own computer. He also noted that there was a lunch tray.

Finally, Red, N9GHE, noted that the club banquet (traditionally known as the Wives' Appreciation Banquet) will be held in the evening after the hamfest -- May 8th, at the Fawn Supper Club, off Memorial Drive, between Manitowoc and Two Rivers. The dinner will include sirloin tips and gravy and chicken for \$8 per person. Dinner will be at 7 p.m., with socializing beginning about six. Reservations (with payment) need to be in to our club treasurer at least 10 days prior to the banquet. Checks can be sent via the club: P.O. Box 204, Manitowoc 54221-0204. NZ9Z will show slides of he and his wife's recent visit to Sri Lanka and his operation as 4S7/NZ9Z, as well as of other points along their around-the-world trip.

A motion to adjourn was made by Bill, K9DUX, and seconded by Len, N9QFO. The meeting adjourned at 8:10 PM.

Submitted for approval:  
John Meyer, NZ9Z, Secretary

## Riverland Amateur Radio Club

Dick Low, K0JYB,  
Secretary

Club mail address: P.O. Box 621  
Onalaska, WI 54650



### MEETING MINUTES APRIL 6, 1993

The April meeting of the Riverland Amateur Radio Club was called to order by President Bob, N9LZK, at 7:03 p.m. There was one visitor from Winona, MN. Bob, N0VGT, and 31 members in attendance.

The minutes of the March meeting were read by Secretary Dick, K0JYB, and were approved as read.

There was no treasurer's report, as Duane, W9HWQ, was absent.

#### COMMITTEE REPORTS

**VE EXAMS:** Walt, AA9AW, reported that there were eighteen candidates who took the exams on March 25, 1993. Those who passed the exams were as follows: Novice 2, No Code Tech. 5, Tech. with Code 3, General 1, Advanced 1, Extra 1.

**HAM FEST:** Judy, N9LGV, announced that she was looking for a name for the event and will then be ready to mail out the flyers. Rick, KV9U, moved that we call the event the "RIVERLAND HOBBY ELECTRONICS SWAP MEET". The motion was seconded by Feroz and carried.

**TECHNICAL:** Van, WA9FIO, reported that all is quiet, it works!

#### OLD BUSINESS

None.

#### NEW BUSINESS

Feroz, WU9N, informed us of the Wisota annual Packet meeting, to be held on April 17, 1993 at the College of St. Teresa in Winona, MN. Items that will be discussed at the conference will be high speed links to the East and to the West. Other topics will be Packet Clusters and Packtor. Starting time is at 9:30 a.m.

Feroz recently traveled to Sri Lanka, but was unable to make scheduled contacts because of band conditions. He brought back greetings from the Hams in 4S7 land. Feroz may be going back to Sri Lanka in December. Let's hope for better band conditions.

Bruce, K9CUT, was working on a liaison between the Hams of Dubna, Russia and the Hams here, and he did establish an initial contact. Possibly a public relations project for the club to take on, at least start off with a schedule with Dubna. See Feroz if you are interested in participating.

A moment of silence was held for Al Skwiercz, W9QHM, who recently passed away.

Meeting adjourned at 7:29 p.m.

Submitted by Dick, K0JYB

## Northern Wisconsin Radio Club

- Since 1923 -

Steve Hart, KA9OMC, Secretary

Route 1, Box 54 • Knapp, WI 54749



Greetings, NWRC members and guests.

The last meeting of the NWRC was held on March 23 at the Peppermill Restaurant in the Thunderbird Mall in Menomonie. Attendance total was 20. The meeting was called to order by President Erik, N9KIP. Vice-President Cory (ex-N9KVH), AA9GB, was touring in Sweden with the school jazz band.

#### OLD BUSINESS

A report on the auction statistics was read by the Secretary/Treasurer, and the balance to date was \$586.73. Bruce Walther, W9QAH, had sent a picture of his shack and a letter of thanks for the gift certificate for his help on the club auction. Bruce says, "The auction is his favorite meeting." Don, WD9IJY, commented on the auction length, and thought more items could be consolidated.

The thrift sale in Menomonie, along with the upcoming food stand at Don's Super Value, was discussed, and a sign-up sheet was passed around for volunteers. The number of volunteers so far is only 5 filling 10 out of 84 time slots. Members should remember that they made the suggestion to have this as a fund-raiser and voted to do it. The officers have followed through with the members' request by setting it up with the store. Call the secretary at 665-2374 to help with this activity. Dates for the food stand are May 5, 6, and 7.

#### NEW BUSINESS

It's time to think about Field Day. In past years, the NWRC and Eau Claire Amateur Radio Club have combined their efforts. N9HME, Dan, will check to see if the EC Club will host the event this year.

We still need a few more ARRL members to make 51% for affiliation. If you are renewing or joining ARRL, please

join through NWRC as the club retains commission for handling the paperwork.

N9SPL, Darrell, is researching information on caps, jackets, and call letter pins.

Doug Farrell received a BSSS subscription for his help with the auction; congrats to Doug for passing the Technician class.

The club resolved to hold next year's auction on Feb. 24 at the Legion in Eau Claire.

The next meeting of NWRC will be April 27 at 7:30 p.m. at the Peppermill Restaurant in the T-Bird Mall, Menomonie. A program and possible tour to follow will be offered by Michael Champion from CelluLink.

Remember the meeting coming up on May 25, same time and place.

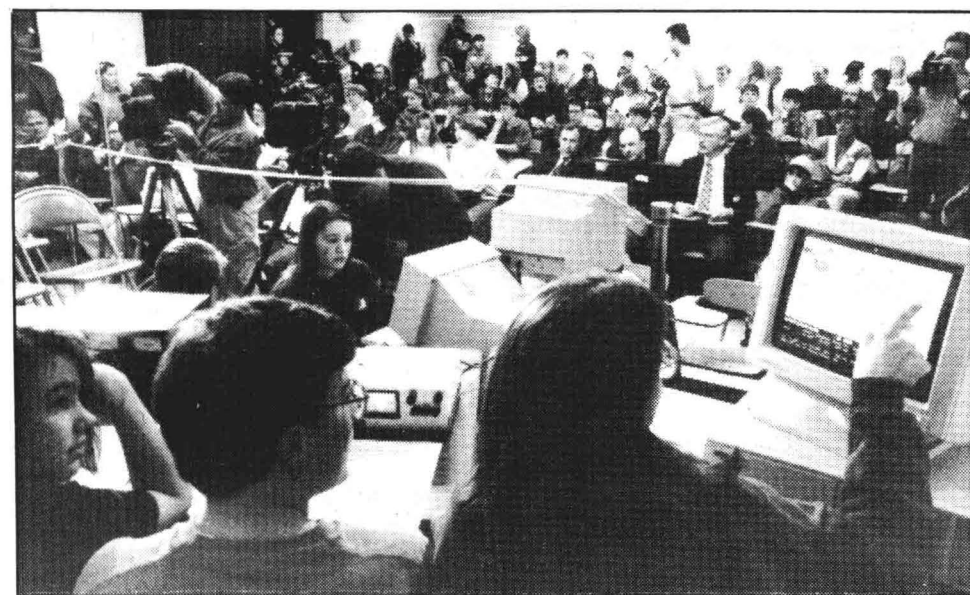
Following our meeting, a program on tornado awareness was given by Dunn County Emergency Services Director Tom Johnson, N9KMZ. Tom suggested that some of the old "do's" are now the new "don'ts" in protecting yourself in a storm. Handout materials are available at most county coordinator offices on tips for survival. Tom indicated that the county 911 system should be working throughout in 1995.

Included in the program was a film demonstrating the evolution of a tornado and the disaster some have caused. We were also reminded of the upcoming hazardous material drill on May 8 in Boyceville. Contact Tom at 232-1348 if you wish to participate.

Our thanks to Tom and NX9F, Jim, for their work on the Skywarn class and the public affairs program aired on WMEQ radio in Menomonie covering the community, government, and amateurs' role in weather spotting.

NWRC Sec./Treas. Steve Hart, KA9OMC

## Students in School - Two Hours Early



This was the scene at about 6 a.m. at Hudson Junior High School, just before the SAREX contact with Ken Cameron, KB5AWP, aboard the orbiting shuttle Discovery. The students are watching the shuttle's orbital path on a computer monitor. Media crews and staffers are visible at left, and the room is filled with adult and student observers.

- Photo by Margaret A. Ontl/Hudson Star-Observer



# Eau Claire Amateur Radio Club

J. Brennan Fitzl, N9LIJ, Secretary

1418 Altoona Avenue • Eau Claire, WI 54701

## MEETING MINUTES APRIL 13, 1993

The meeting was called to order by President Bill Jablonske (W9NNS) at 1934 local time.

Jim (N9LIJ) read the minutes of the previous meeting, which were then approved by the membership.

Sue (KB9EUP) read the treasurer's report, which was accepted.

April birthday greetings to the following club members:

KA9YSR	Bill Bilbrey
KA9GGX	Ken Lundberg
W0OCZ	Nat Perry
W9EA	Robert Williams

## OLD BUSINESS

KB9EUP then reported on the relative numbers of calls made on the K9UXP and the KA9ELD repeater autopatches. KC9NN mentioned that the problem with the KA9ELD autopatch is that if you are mobile, it drops with no provocation. Discussion of the desirability of maintaining the patch followed. The general

consensus seemed to be to keep the patch, but fix the problem. The possibility of a new controller/patch was raised by W9NNS. Don (W9NFJ) made motion to have the repeater committee look into the problem. Ralph (WB9RUK) seconded the motion, and it was carried.

REPEATER CARDS: Not ready yet.  
NO-CODE TECHNICIAN CLASSES: Kevin (N9OHE) has written to another club about their program, but has received no reply as of yet. This is a different club from the one that offered the 8-hour crash course. More research required on this matter.

RAIN DIAL-UP vs. NEWSLINE: Discussion of merits of each of these services followed. Some members expressed concern over the advertisement on Newsline. The general consensus was that Newsline provided a more varied program, and was not as long as the RAIN program. Leroy (N9RSU) moved that the club continue to use the Newsline service on a regular basis during the Sunday night net. Jeff (N9PPE) seconded, and the motion carried.

ARRL membership forms are here. Those wishing to renew membership in

ARRL or join for the first time, see N9LIJ.

911 on the K9UXP autopatch: Either \*9 or \*911 will now dial the emergency number.

## NEW BUSINESS

Don (N9OHG): Boy Scouts request amateur station/demonstration for THE BIG EVENT May 14, 15, and 16. Anyone interested in this should contact N9OHG. The event will be held at Carson Park in Eau Claire.

HAMFEST: Sign-up for volunteer duties at the hamfest will be at the May meeting. W9NNS noted that set-up help is badly needed. The hamfest will be held on Saturday, July 24.

It was noted by several members that there is a source of hamfest information available which has the date incorrectly listed, and wants to make sure that the word gets out as to the correct date. Liz (N9EQR) suggested that the secretary send notice to *Badger State Smoke Signals* as to the correct date of the hamfest. Nolene (N9MNA) suggested a group of flyers to be sent to the retailer and have them mail them or hand them out. Don (K9UXP) requested that any members going to other hamfests distribute flyers.

Carl (W9NW) suggested that the club rent a trailer for hauling tables to and from the event. Fred (KC9NN) mentioned that at one hamfest a menu was passed out with the tickets, and thought that we might do the same. It was also mentioned that we should look into the possibility of reser-

ving hotel/motel rooms because of other events in the area on the same day. This was rejected.

Hamfest arrangements will begin in earnest at the next meeting.

FIELD DAY: Dan (N9HME) asked about Field Day. The NWRC wants to know if we will host it this year. Anyone interested or who has a place for the event, please contact Dan (N9HME).

A suggestion was made to check on the availability of W0AIH's site.

TESTING: W9NW - Tests will be administered this Saturday at St. Olaf's School from 9 - 12 a.m. Refreshments will be served. Please note the change on 610 form. Station location is no longer required by FCC. Testing at hamfest on Friday evening 7 - 9 and Saturday during hamfest.

Duluth-Holcomb-Hayward and Wausau repeater linking project is underway, according to W9NNS. Hayward and Holcomb will be first.

Lunch committee for next meeting: Dan (N9HME) and Kevin (N9OHE).

There was a belated introduction of new members and guests prior to adjournment for refreshments and a very interesting set of tornado spotting tapes in preparation for the severe weather season.

Next meeting will be on May 11, 1993.

Respectfully submitted:  
J. Brennan Fitzl, N9LIJ, Secretary

## A Voice - and a View - from Space

The following is the complete transcript from the communication with space shuttle Discovery's mission commander Kenneth D. Cameron and students at Hudson Junior High School on April 15. Mike Larson (KA9YRW) and Nicole Wiersgalla (KB9IER) were the student radio operators who communicated with the shuttle.

Larson: CQ CQ CQ Space Shuttle Discovery this is KA9YRW Kilo Alpha 9 Yankee Romeo Whiskey

Cmdr. Cameron: Go ahead KA9YRW

Larson: This is KA9YRW

Wiersgalla: This is KB9IER Kilo Bravo 9 India Echo Romeo

Wiersgalla: We would like to thank AMSAT, ARRL and NASA for this opportunity to participate in SAREX.

Cameron: Could I get that call of that young man who was talking to me a minute ago, I am afraid I didn't say it right.

Larson: KA9YRW Kilo Alpha 9 Yankee Romeo Whiskey. Over.

Cameron: KA9YRW Kilo Alpha 9 Yankee Romeo Whiskey. You have a real good signal. I enjoy talking to you. Do you have questions today?

Larson: We have 10 students who have questions for you, and we hope that they all get a chance to speak. Here we go.

Student: I am Libby Fisher from Fourth Street School. Why is it important to track space debris; have you ever seen any?

Cameron: It is important to keep track of so we know where it is so we can plan our orbits to avoid it, and I have never seen any while we are up here, but I have seen other satellites while we're up here. Over.

Student: Hi, I'm Greta Tracy and I am from North Hudson School, and how did you get interested in science and choose to become an astronaut? Over.

Cameron: Well, it is a good question, and I remember when I was at school in elementary school and junior high watching the first astronauts fly and thinking how much fun that would be and it sort of made me think about how you would become one and what you would have to study, and I guess I liked math and science partly because of that, and that is what I studied when I was in school. Over.

Student: I am Brandon Urbanski from junior high. Have you ever found any evidence to indicate that the sun is widening in the hole in the ozone or is it only caused from man-made pollution from earth? Over.

Cameron: It is a good question and we don't yet know the answer. That's part of the purpose of our mission is to find out things like that. We want to with the Atlas mission study the sun's output over an 11-year filler cycle then also study the atmosphere so we know whether something is caused by the sun or by people. Over.

Student: Hi, my name is Krista Stensvold and I am from the junior high, and I was wondering what is the most difficult task in operating the space shuttle?

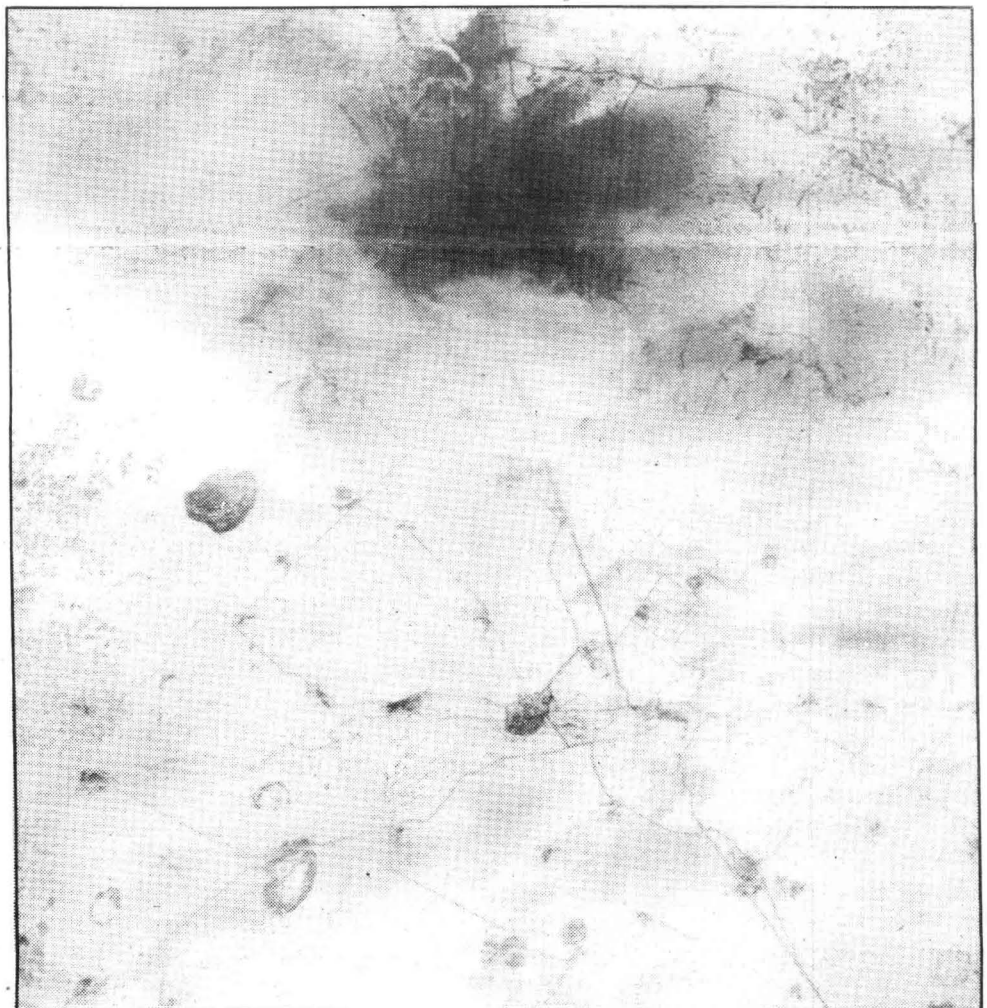
Cameron: OK, well I guess the most difficult parts are the ones where things are happening the fastest -- that is probably in the ascent, after we launch and also during the entry. Then the other places that can be real busy are with complicated payloads or maneuvering. Over.

Student: Hi, I'm Justin Vold from Houlton School. When I become an astronaut, what challenges will I face exploring space?

Cameron: OK, well when you become an astronaut, that will be a good ways down the road I would bet, I hope that you have challenges to face like going to other planets and learning new things in space stations going to the moon. One of the things we do in the shuttle is to continue to explore, and I hope that the space program that we turn over to your generation is a very healthy and active one and continues to learn new things in space. Over.

Student: Hi, my name is Wendy O'Connell and I am from E.P. Rock School. My question is, Can you see over the smoke from the burning tropical rain forests in Brazil? Over.

Cameron: Yes we can. We are well above the atmosphere, more than 100 miles, so we can see smoke from fires whether it is in Brazil or other countries, and we can see dust clouds, some of them that go from the Sahara Desert in Africa and blow dust all the way to Brazil, and we see other signs of large weather formations. Over.



This view of Siberia was taken during shuttle mission STS-45. The black material at the top of the frame is particulate "fallout" from industries, and shows clearly against the snow.

- NASA photo

Student: Hi, I'm David Grass. How do stars look different from the space shuttle than from earth. Over.

Cameron: From the space shuttle the stars look a lot like they do on earth only they ... (white noise overrides the transmission).

Students: Hi, I'm Sibyl Siegfried

Hi, I'm Damon Parr.

Hi, I'm Allison Kary. Over.

(They temporarily lose the shuttle and try to reestablish communications)

Wiersgalla: This is KB9IER Kilo Bravo 9 India Echo Romeo calling KB5AWP

Cameron: KA9YRW, KA9YRW from KB5AWP. The shuttle orbiter is maneuvering to point its instruments to measure the sun and the atmosphere and that means that our antenna is not pointing at you. I am afraid that our signal is fading. I have enjoyed talking to all of your students today. Over.

Wiersgalla: We have three more students that would just like to say hello, and here they are quickly:

Students: Hi, I'm Sibyl Siegfried, Hi, I'm Damon Parr, Hi, I'm Allison Kary. Over.

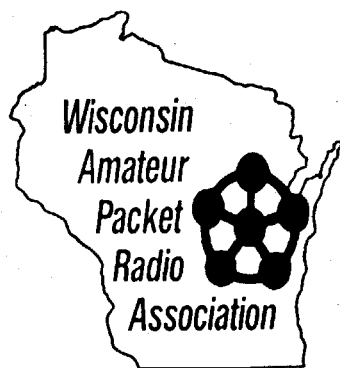
Cameron: KA9YRW, KA9YRW or KB9IER are you still with me? Over.

Wiersgalla: This is KB9IER did you copy those last three students? Over.

Wiersgalla: This is KB9IER and KA9YRW thanks a lot and 73.

This transcript was provided by the Hudson Star-Observer.





# THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association (WAPR)

William Schroeder, W9ZBD

4247 Forest Point Drive • Rhinelander, WI 54501

Steve Loeffler, WB9ZRE, Editor, 123 W. Oshkosh St., Ripon, WI 54971

## New TCP/IP Book Available

A new TCP/IP primer, NOSintro - TCP/IP over Packet Radio (An Introduction to the KA9Q Network Operating System) written by Ian Wade - G3NRW is now available thru the Chicago Area Packet Radio Association. The book contains 356 pages of information and over 80 detailed diagrams tailored to instructing newcomers to TCP/IP as well as providing a ready reference to the experienced user. The book covers such topics as: where to get software, software installation, names, domains, addresses, preparing files, mail forwarding, FTP, setting up a NOS BBS, and routing.

To order your copy, send your name, address, telephone number and a check or money order in the amount of \$22.50 and mail it to:

C.A.P.R.A.

P.O. Box 8251

Rolling Meadows, IL 60008

Shipment will be made by USPS 2nd Day Priority Mail Service.

Please note that this is not a money-making effort on the part of CAPRA. They are merely providing a pipeline from the publisher to users in the US.

## New KA-nodes on .97

Two new KA-nodes, sponsored by Len - N9QIP, have been placed online this past month. The N9QIP-8 node is located in Arlington, WI and the N9QIP-7 node is located in Hillsboro, WI. The Hillsboro node has a radial range of about 90 miles in most directions. Both nodes operate on 144.97.

## Address Your Bulletins Properly

To send a Bulletin, use the command SB then use one of the "words" in this list that best describes what your Bulletin is all about. In the "@" part of the address, use the most local routing available first & if no responses after a week then increase the coverage. The various routings available in SE Wisconsin are LOCAL, RIWIS, DIST9, & ALLUSA. Example of sending a bulletin. SB HELP @ RIWIS In the "Subject" field, describe your bulletin in less than 30 characters. You will amaze yourself at the success this will bring you. Here is the list:

4SALE DO NOT USE, Use SALE instead (this is a Sri Lankan Callsign!)

ADAM Adam Computer

AEA AEA Gear

ALINCO Alinco Gear

ALL Use ONLY in last resort

AMIGA Amiga Computer

AMSAT AMSAT (satellite etc)

AMTOR Amtor

ANT Antenna info

APPLE Apple // series (see MAC for Mac's!)

ARES Amateur Radio Emergency Service information

ARRL ARRL bulletins

ATARI ATARI Computer

ATV Information on Amateur Television

BEACON Propagation Beacons

C128 Commodore C128

C64 Commodore C64

CLASS Ham license class announcements

CLUB Club events, meetings, announcements

COMMDR Commodore Computer

COMPTX Computer (non-specific)

CFM CP/M-80/86 Computer

DX DX reports and information

EXAM Ham license exam announcements

FCC FCC info

GRIPE Complaints (use with care!)

HAMFST Hamfest or flea market announcements

HELP Requests for info, help, or questions

HUMOR Funny quips, amusing stories, etc.

IBM IBM (or compatible)

ICOM ICOM gear

INFO Other information

KANIRN Kantronics Gear

KENWOD Kenwood Gear

KEPS Keplarlan Elements

LIST Other lists (BBSs, Nodes, Frequencies)

LLBBS Land Line (Phone) BBS

MAC Macintosh

MAP Maps (Packet or otherwise)

MAPKEY Index or lists of maps

MARS Information pertaining to Military Affiliate Radio Stations

MFJ MFJ Gear

MOD Request or info concerning equipment modifications

MODS DO NOT use (see MOD)

MOON EME (Moonbounce)

NETWRK Announcements about packet network

NTS National Traffic System information

OSBORN Osborne Computer

PACCOM PacComm Gear

PART Looking for Parts

PC IBM/MS-DOS Computer, DO NOT USE (see IBM)

PIX ASCII pictures

PRMBS Information pertaining to using PRMBS software

PROP Propagation

PUBSVC Announcements of public service events

PUZZLE Puzzles

QRP Information pertaining to QRP operations

QSL QSL card queries/reports

QST Information

RACES Races (also see ARES)

RADSHK Radio Shack, DO NOT USE (see TANDY)

REQDB Database Requests (on some BBS's)

REQDIR Directory Requests (on some BBS's)

REQFIL File Requests (on some BBS's)

REQQTH Callbook Requests (on some BBS's)

RITTYDX VK2SG originated RITTY news.

SALE Items for sale (MUST be Ham related)

SAR Search and Rescue information

SAT All satellite information

SOAPBX Opinions

SOFT Software

SOLAR Solar Flare etc

SPACE SpaceNews originated by KB2BD relating to space items, etc.

STOLEN Stolen Ham Gear reports

SWL SW Broadcast news

SYSOP Provide information to, or request information from a Sysop

TANDY Tandy and Radio Shack

TCPIP TCP/IP (KA9Q)

TNX Thank You notes

TRADE Items for Trade (MUST be Ham related)

UNIX UNIX Computer

USERS Information for BBS users

VIC20 Vic-20 Computer

WANT Things wanted (MUST be Ham related)

WANTED DO NOT USE (use WANT)

WX Weather Information (should be LOCAL in nature)

YAESU Yaesu Gear

Good Luck with your correctly addressed & described bulletins..

Dan - WB9TYT

WAPR/WAR 04-15-93

WISCONSIN PACKET BANDPLAN

\*\*\*\*\*

50.740 Mhz Waupaca, Wausau, Rhinelander, Tim's Hill, Park Falls & Meteor Hills, Chippewa Falls 2400 Baud

Backbone Link

50.620 / 51.620, 50.640 / 51.640,

50.660 / 51.660, 50.680 / 51.680,

50.720 / 51.720, 50.760 / 51.760,

50.780 / 51.780

51.620 Mhz Repeater output or Simplex

51.640 Mhz Repeater output or Simplex

51.660 Mhz Repeater output or Simplex

51.680 Mhz Repeater output or Simplex

51.700 Mhz National Packet Simplex

\*\*\*\*\*

144.910 Mhz. DX Cluster Node Linking

144.930 Mhz. Oneida & Vilas County LAN

144.950 Mhz. Milwaukee County LAN

144.970 Mhz. Amsat & Satellite operations

144.990 Mhz. Markesan & Ripon LAN

145.010 Mhz. Sheboygan & Manitowoc Co. LAN

145.030 Mhz. Mail Forwarding Backbone and Long Haul. (Nodes only on this Frequency)

145.050 Mhz. KEYBOARD COMMUNICATIONS AND EXPERIMENTATION (BBS FREE). (This frequency will be designated real time communications. NO BBS's operated on this freq.)

145.070 Mhz. Green Bay and NE Wis LAN

145.090 Mhz. South Central Wisconsin LAN

145.110 Mhz. LaCrosse-Winona area LAN

145.130 Mhz. Milwaukee Area South LAN

145.150 Mhz. DX Packet Cluster User End Access Frequency

145.170 Mhz. Racine & Kenosha County LAN

145.190 Mhz. Monroe County LAN

145.210 Mhz. Amsat & Satellite operations

145.230 Mhz. Ozaukee County ARES, Price, Ashland and Taylor County LAN

145.250 Mhz. LaCrosse area LAN

145.270 Mhz. Waukesha & Jefferson County LAN

145.290 Mhz. ARES Linking statewide to interconnect ARES LAN frequencies.

145.310 Mhz. Stevens Point, Wausau, & Central Wisconsin LAN

145.330 Mhz. Waupaca & Appleton area LAN

145.350 Mhz. Statewide TCP/IP Frequency

145.370 Mhz. Milwaukee Area North LAN

145.390 Mhz. North Central & Northwest Wis LAN

\*\*\*\*\*

222.190 Mhz 2400 Baud BBS linking in SE WI

223.400 Mhz Protected in Southern Wisconsin

223.420 Mhz DX Cluster user LAN

223.440 Mhz DX Cluster user LAN

223.460 Mhz DX Cluster user LAN

223.480 Mhz DX Cluster user LAN

223.560 Mhz 9600 Baud link LaCrosse to Minnesota

223.565 Mhz 4800 Baud linking Slinger, Markesan, & Lodi

223.580 Mhz 2400 Baud linking N. Prairie to Burlington & Illinois

\*\*\*\*\*

430.050 Mhz DX Cluster linking

430.950 Mhz 9600 Baud link from LaCrosse to Rochester, MN

431.025 Mhz (Proposed) LaCrosse area

440.975 Mhz Illinois Northeast-Wisconsin Southeast Forwarding Link

441.050 Mhz Milwaukee area LAN

446.025 Mhz 2400 Baud link Green Lake to Neenah

446.100 Mhz 4800 Baud linking in Eastern WI

446.125 Mhz Ixonia ARES LAN

446.175 Mhz Durand Forwarding link

446.225 Racine & Kenosha County ARES LAN

446.275 LaCrosse & Onalaska LAN

446.375 Neenah & Green Bay link

446.425 Waukesha County ARES LAN

446.475 Milwaukee County ARES LAN

446.525 Ozaukee County ARES LAN

446.575 Madison area LAN

446.625 Park Falls & Ashland link



446.425 Washington County ARES LAN  
446.675 4800 Baud Markesan to Waupaca link

\*\*\*\*\*  
902 - 928 Mhz Consult with WAPR  
\*\*\*\*\*  
1240 - 1300 Mhz Consult with WAPR  
\*\*\*\*\*

Please contact any WAPR Officer with your plans & we will assist you in locating a frequency that will fit your needs.

ARRL Bulletin 45 ARLB045  
From ARRL Headquarters  
Newington CT April 16, 1993  
To All Radio Amateurs

The FCC today issued a public notice on the ARRL proposal for rulemaking regarding digital rules for the amateur high frequency bands. The proceeding, which bears the file number RM-8218, originated with submission of the request by the League on February 1, 1993. A Synopsis appears on page 82, QST for March. Copies of the 36 page paper may be obtained from the regulatory information branch at ARRL headquarters. A large self-addressed envelope bearing six units of first-class postage will speed the reply.

Interested parties may file a statement with the FCC, Washington DC 20554 By May 17. Replies to the comments of others are accepted until June 1. The Commission requires an original and four copies of the documents for formal participation, but will accept an original and one copy as informal comments from the public. In either case, a certificate of service must accompany the comments, showing that a copy has been mailed to the original petitioner, the ARRL in this instance. For reply comments, a copy similarly is required for each respondent on whose document one is commenting.



## Johnsen Computer Systems

• Sales • Rentals • Service  
• Leasing • 100% IBM Compatible  
**(608) 356-5515**

Bill Johnsen  
President

402 Broadway  
Baraboo, WI 53913

## WISCONSIN WEB

Web Printing on Newsprint  
and Uncoated Papers

327 Palisade Street  
Merrimac, WI 53561

(608) 493-2181



We've moved to our new, larger store at  
1212 8th Street in Baraboo, just 2 blocks  
east of our former location. Check us out!

BETTER SELECTION • SAME LOW PRICES  
MORE PARKING • SAME FRIENDLY SERVICE

## TROYER *Rexall* DRUGS

JACK D. TROYER, R. PH. • DAVID M. FUHS, R. PH.

"Good Health is our Business"

WE MAINTAIN A COMPLETE RECORD OF YOUR  
FAMILY'S PRESCRIPTION PURCHASES

106 4th Avenue  
Baraboo, Wisconsin

Phone 356-4964

# Yellow Thunder Amateur Radio Club

WB9FDZ (Original Club Call) • K90DK (Robert L. Prine Memorial Call)



Raymond J. Matlosz, N9MLZ, Secretary

450 West 2nd Street • Reedsburg, WI 53959



The April 13, 1993 meeting of the Yellow Thunder Amateur Radio Club, Inc., was called to order at 8:33 p.m. by Bill Klinkner, N9KXX.

The minutes of the last meeting, as published, in the BSSS were accepted.

There were a few errors in the program schedule. Please note the changes and corrections in the program schedule that is published with the months minutes.

Jim Decker, WB9UQT gave the Treasurer's report.

Duane Grotophorst, KA9HKL, and Bill Klinkner, N9KXX, reported on the classes for the codeless technician class license. Four students took the exam in Madison on Saturday, April 10th and all four passed. Several students for the Sauk City area plan on taking the exam in May.

NEW BUSINESS: Bill Klinkner told the club that the boy scouts have again requested the club to have a Ham Radio display at their Heritage Days Jamboree on Saturday, May 15th in Baraboo.

The club voted on the applications of Jack Kirner, N9LKZ and Jim Paul, N9LKY. Both were accepted for membership into the club.

Bill Klinkner mentioned that Mark Snyder, N0MVV volunteered to work on the arrangements for the Christmas party this year.

Field day is June 26 and the club members discussed the possibility of having a picnic that day in Owen Park. Other items discussed regarding Field Day preparations was the need to have the club license and a copy of resolution by Columbia County authorizing the club to operate from Owen Park.

In other business, it was reported that a local business donated surplus material to the club which was then sold at the Madison Hamfest and netted \$36.00 for the club.

Paul Snyder, won (and as he was not present, lost) one dollar for buck night.

A motion was made and seconded to adjourn the meeting at 8:58 p.m.

The meeting began late as the information meeting regarding the establishment of a repeater which preceded the regularly scheduled club meeting went longer than expected. A follow-up meeting will be held at 7:00 p.m., immediately preceding the next club meeting.

Respectfully submitted,  
Raymond J. Matlosz, N9MLZ, Secretary

The next meeting of the YTARC will be held on Wednesday, May 12, 1993 at the Baraboo Civic Center at 7:30 p.m. in room 14. There will be an informational meeting regarding establishing a new two meter repeater in this area at 7:00 p.m.

The program scheduled to follow the business meeting will be on Emergency Government and Amateur Radio.

### 1993 YTARC PROGRAM SCHEDULE (revised and corrected)

#### 1993 YTARC PROGRAM SCHEDULE

May 12	Emergency govt. and Ham Radio
Jun. 17	Field Day Preparation
Jul. 13	VHF contesting
Aug. 18	Fox Hunt
Sep. 16	Elections
Oct. 12	DX
Nov. 17	Computers and Packet Radio
Dec. 16	Christmas party

The following members and guests were present:

L.J. Hemmer, WB9TFJ	Baraboo
Rohbert Hemmer, N9LXX	Baraboo
Raymond Matlosz, N9MLZ	Reedsburg
Bill Klinkner, N9KXX	Sauk City
Duane Grotophorst, KA9HKL	Loganville
Harold Reif, KA9YQP	Baraboo
Arthur Kleefisch, W9WSS	Baraboo
Thomas Harrison, N9PQJ	Reedsburg
Peter Sweeney, W9JIB	Reedsburg
Harry Mayland, K9EFT	Baraboo
Jim Decker, WB9UQT	Baraboo
Jack Kirner, N9LKZ	Prairie du Sac
Harry Westlund, K9EHJ	Baraboo
Tom Thomson, N9LLF	Sauk City
Jim Paul, N9LKY	Merrimac
Anne Klinkner, N9PQL	Sauk City
Marvin Kaiser	Wisconsin Dells

## TOWER ELECTRONICS MAY SPECIALS

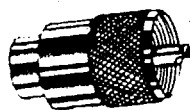
CALL US FOR SAME DAY SHIPPING MASTER CARD, VISA, OR C.O.D.

P.O. BOX 12631 GREEN BAY, WI 54307

NATIONAL WATTS 1-800-662-3422 METRO GREEN BAY 496-0989

SEE US AT THE FOLLOWING HAMFESTS:

MAY 1, CEDARBURG, WI	MAY 2, SANDWICH, IL	MAY 8, MANITOWOC, WI
MAY 15 & 16, BIRMINGHAM, AL	MAY 16, PEOTONE, IL	MAY 22 GRAND RAPIDS, MI
MAY 23, DECATUR, IL	MAY 30, DEVRY- CHICAGO, IL	



PL-259 SILVER PLATED  
TEFTON CENTER  
MADE IN USA REG 1.50  
\$ 1.00 EACH  
50 FOR \$48.00



EXTERNAL SPEAKER  
10 FT CORD W/ 3.5MM PLUG  
MOUNTING BRACKET  
NOISE CANCELING FILTER  
REG 14.00  
\$ 11.00  
5 FOR \$ 54.00



4 PIN PLUG W/ LOCKING RING  
CRAIG STYLE W/BOOT  
REG \$ 3.00  
\$ 1.50  
5 FOR \$ 7.00



MATCHING TRANSFORMER  
75 TO 300 OHM  
INDOOR / OUTDOOR  
REG \$ .75  
\$ .50  
10 FOR \$ 4.75



INLINE SO-239  
CRIMP STYLE  
FOR RG-58 & 8X  
REG \$ 2.50  
\$ 2.00  
10 FOR \$ 19.00



F DOUBLE FEMALE  
REG \$ .50  
\$ .25  
10 FOR \$ 2.25



# The Badger State Smoke Signals Shoppers' Guide

## SWAPFESTS



### 21<sup>st</sup> ANNUAL MIDWINTER SWAPFEST

WAUKESHA EXPOSITION CENTER  
WAUKESHA, WISCONSIN

1992 WINNERS  
Timothy J. Czerwinski, W09U, Chetek  
Robert J. Goemans, N9IAD, Madison  
Douglas Kleeman, K4SLWN, Shawano

Both Sponsored By  
THE WEST ALLIS RADIO AMATEUR CLUB, INC.  
P. O. BOX 1072 • MILWAUKEE, WISCONSIN 53201

### HAM IT UP EVERY SPRING! MADISON SWAPFEST

April 10, 1994

Dane County Expo Center  
Forum Building

Sponsored by MARA/WB9AER

P.O. Box 8890 (608) 249-7579  
Madison, WI 53708-8890 Answer Machine

SOUTH MILWAUKEE AMATEUR RADIO CLUB

### SWAPFEST 93

July 10, 1993  
(Held every July)

American Legion Park  
Shepard Ave. • Oak Creek, WI

(414) 762-3235 Extension 58  
P.O. Box 102 South Milwaukee, WI 53172

### Fox Cities Hamfest

November 7, 1993

Starlite Club, Hwy. 55 north of Kaukauna

HAMFEST INFO:  
Dan Vanevenhoven, N9LVS  
2410 E. Newberry Ct.  
Appleton, WI 54915  
414-739-5101

EXAM INFO:  
Larry Siebers, KD9IA  
414-788-3823

### Lakeshore Hamfest & Computer Swapfest

Manitowoc County Expo

Intersection of Hwys 42-151 and I-43 on Cty Highway R

Saturday, May 8, 1993

For more information, call:

Ron, WS9X: 414-793-4733 (Nights)  
Red, N9GHE: 414-684-9097

ManCoRad Radio Club • P.O. Box 204 • Manitowoc, WI 54221-0204

Sponsored by the  
Peoria Area  
Amateur  
Radio  
Club

**HAMFEST AND  
COMPUTER FAIR**

Exposition Gardens  
Northmoor & University  
Peoria, Illinois

SEPTEMBER  
18 & 19

MANUFACTURER REPS • COMMERCIAL DEALERS  
HUGH FLEA MARKET OF RADIO AND COMPUTER GEAR  
FREE / HANDICAPPED PARKING - FORUMS - LOTS OF PRIZES  
LADIES' ACTIVITY (SAT) - HAM EXAMS (SUN) - FOOD (Pork Chops)  
GATES OPEN 8 am - COMMERCIAL BUILDINGS OPEN 8 am - TALK IN: 148.16/76  
TICKETS AT GATE \$5: GOOD BOTH DAYS (Under 16 Free)

For advance ticket (\$5 ea.) with two prize stubs and/or information send SASE to: Peoria Area Amateur Radio Club, P.O. Box 3508, Peoria, IL 61612-3508 or telephone answering machine 309/685-6698.

### 15th Annual CWRA SWAPFEST

Sunday, June 13, 1993 • 8 a.m. to 2 p.m.

UNIVERSITY CENTER, U.W. STEVENS POINT

Info: Art Wysocki, N9BCA 715-344-2984  
3356 April Lane Stevens Point, WI 54481

### EAU CLAIRE AMATEUR RADIO CLUB SWAPFEST

July 24, 1993 • 7:30 a.m. - 2 p.m.

Chippewa Falls Fairgrounds

Lis Searing, N9EQR 1129 McKinley Road  
(715) 834-1303 Eau Claire, WI 54701

### ROCKFORD HAMFEST AND COMPUTER SHOW

Sunday, April 18, 1993

Rockford Metro Centre

Tables: \$12.50 and \$10.00

(After April 1, all tables \$12.00)

Write to: R.A.R.A., P.O. Box 6931, Rockford, IL 61125.  
For more info, call 1-815-399-6995

### Ozaukee Radio Club 15TH ANNUAL RADIO AND COMPUTER SWAPFEST Saturday, May 1, 1993

8 a.m. to 1 p.m. • Circle B Recreation Center  
Intersection of Highway 60 and County I  
Exams by Badger Examiners, c/o Gary Sharbuno,  
5119 W. Willow Rd., Brown Deer, WI 53223  
Swapfest sponsored by Ozaukee Radio Club  
11448 N. Laguna Drive • Mequon, WI 53092

### Kettle Moraine Radio Amateurs SWAPFEST

Sunday, October 10, 1993

Waukesha County Expo Center

Info: KMRA Swapfest P.O. Box 411  
Waukesha, WI 53187-0411

Northern Wisconsin Radio Club

### AUCTION

February 22, 1994 • 7:00 p.m.

American Legion Post 53 • 634 Water Street  
Eau Claire, WI

CONTACT:

Steve Hart, KA9OMC  
Route 1 Box 54

715-665-2374  
Knapp, WI 54749

## PRODUCTS AND SERVICES

### AES... ★ New Location!

One of the World's Largest Ham Dealers right here in Wisconsin!

All Major Brands ★ Large Stock ★ Fast Service

AMATEUR ELECTRONIC SUPPLY®

5710 W. Good Hope Road • Milwaukee, WI 53223

Phone: (414) 358-0333 • Toll Free: (800) 558-0411

FAX: (414) 358-3337

HOURS • Monday thru Friday 9-5:30; Saturday 9-3



### Radio Recyclers

M, Tue, F... 10-5  
SAT ..... 10-2

USED AMATEUR RADIO EQUIPMENT

Neil Lawton WK9Q

414-383-9001

Buy • Sell • Consignment

3221 W. LINCOLN AVENUE • MILWAUKEE, WI 53215

715-644-2112 FAX: 715-644-2621

### RICH'S SURPLUS

Route 2 • Stanley, WI 54768

"Your Discount Ham Source"

ARRL/Ameco/Artsci/Etc. Books  
Alinco VHF/UHF line from \$249

Most items/brands available by order

Jo, N9MEI

Rich, N9MEH

### FREE QSL CARD SAMPLES

We carry a full line of  
QSL Cards and related products.

High Gloss Cards Fluorescent Cards  
Economy Cards QSL Eyeball Cards  
Personal Envelopes Rubber Stamps

Call or Write Today!!

The Little Print Shop

P.O. Box 1160 • Pflugerville, Texas 78660

(512) 990-1192

### TOWER ELECTRONICS

CONNECTORS, ADAPTORS, & MORE



1-800-662-3422  
(414) 496-0989



P.O. BOX 12631  
GREEN BAY, WI 54307

2205 DOROTHY LANE  
GREEN BAY, WI 54304

Craig Henderson  
N8DJB

Ph. (419) 352-4465  
Hours: 10 - 5

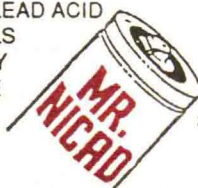
### C.A.T.S.

Rotor Parts and Repair

### BATTERIES

BATTERIES FOR ALL YOUR POWER REQUIREMENTS

NICKEL CADMIUM  
SEALED LEAD ACID  
GEL CELLS  
MERCURY  
ALKALINE  
LITHIUM



E.H. YOST & COMPANY  
7344 TETIVA ROAD  
SAUK CITY, WISCONSIN 53583  
TELEPHONE (608) 643-3194  
FAX # (608) 643-4439

### VCR SERVICE

North Freedom Electronics  
Same day service by appointment

VCR Cleaning: \$12.95

Computers • Musical Instruments

Stereos • Auto Sound • CDs • CBs

Sorry, no TVs or stacked stereo systems

HOURS MAY VARY - CALL AHEAD

John Schmelzer  
201 E. Walnut Box 18

(608) 522-4366  
North Freedom, WI 53951